GOVERNOR'S COMMISSION
TO REVIEW CALIFORNIA WATER RIGHTS LAW

LEGAL ASPECTS OF WATER CONSERVATION IN CALIFORNIA

Background and Issues

by

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THIS PAPER HAS NOT BEEN REVIEWED
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This paper is part of a series of background and issue papers prepared by the staff of the Governor's Commission to Review California Water Rights Law. The background material is intended to assist persons who may lack detailed knowledge of California's water rights law and procedures. The issues have been listed as a basis for discussion by the public and for the Commission when it considers various legislative options. Initial papers in the series are as follows:

Staff Paper No. 1:	Appropriative Water Rights in California
Staff Paper No. 2:	Groundwater Rights in California
Staff Paper No. 3:	Legal Aspects of Water Conservation in California
Staff Paper No. 4:	Riparian Water Rights in California
Staff Paper No. 5:	The Transfer of Water Rights in California
Staff Paper No. 6:	Legal Aspects of Instream Water Uses in California

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THE LEGAL ASPECTS OF WATER CONSERVATION IN CALIFORNIA

Water uses cover the breadth of human activity. Water sustains our agriculture and cleans our windshields. It provides us with hydroelectric power and it washes our dishes. It supports our industrial growth and it nurtures our gardens. It collects our wastes, cleans our bodies and grants us a continuous source of beauty and awe. And, this year, it is very, very scarce.

Long-term projections of water conditions in California suggest a growing scarcity of usable water. The Department of Water Resources estimates that annual net water demand [1/] for beneficial uses in California will increase from 31 million acre-feet in 1972 to 38.8 million acre-feet by the year 2000. [2/] By that time, annual net water demand is expected to exceed dependable supply by 4.3 million acre-feet. [3/]

Short-term projections of California water conditions are even more bleak. Precipitation between October 1, 1976, and April 30, 1977, has been 30 percent of average. [4/] Seasonal snow accumulation, based on May 1, 1977,

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1/ Net Water Demand = the amount of water required to be delivered at the point of use, such as a municipal water system, factory, or farm headgate plus conveyance losses of water from its source to the point of use, minus reuse of return flow and deep percolation of water previously applied. CALIFORNIA STATE WATER RESOURCES CONTROL BOARD, POLICY AND ACTION PLAN FOR WATER RECLAMATION IN CALIFORNIA 4 (1977).

2/ Id.

3/ Id.

4/ CALIFORNIA DEPARTMENT OF WATER RESOURCES, REPORT NO. 4, WATER CONOITIONS IN CALIFORNIA 5 (1977).

snow surveys, was only 5 percent of normal. [5/] Projections of storage in eleven Central Valley Project and State Water Project reservoirs indicate that the October 1, 1977, storages will be about 15 percent of available capacity and 20 percent of the ten-year, October 1 average.[6/] As a result, the State Water Project has imposed 50 percent deficiencies on agricultural deliveries and up to 10 percent deficiencies on all municipal and industrial water. [7/] The U. S. Bureau of Reclamation has reduced deliveries by 75 percent for agricultural water users and by 50 percent for municipal and industrial users. [8/]

The current condition of water scarcity has forced the consideration of water conservation measures. This paper will consider the legal aspects of water conservation. [9/] More specifically, the paper will discuss the constitutional duty to conserve water, note the water rights consequences of water conservation, outline some of the existing institutional methods for encouraging water conservation, and summarize some alternative water conservation policies.

5/ Id.

6/ Id.

7/ Id. at 13.

8/ Id.

9/ Water conservation means many things to many people. Under Article 10, Section 2, of the California Constitution, water conservation is synonymous with the reasonable beneficial use of water. The California Supreme Court, in Gin S. Chow v. City of Santa Barbara, indicated that the storage of water for agricultural and industrial growth constitutes water conservation. Gin S. Chow v. City of Santa Barbara, 217 Cal. 671, 702, 22 P.2d 5 (1933). In Environmental Defense Fund, Inc. v. East Bay Municipal Utility District, the plaintiffs have alleged that the water conservation policy expressed in Article 10, Section 2, imposes a duty to consider the feasibility of waste water reclamation. Environmental Defense Fund, Inc. v. East Bay Municipal Utility District, 125 Cal.

I. The Duty to Conserve Water: The Constitutional Requirement of Reasonable Beneficial Use.

On November 6, 1928, the California electorate adopted Assembly Constitutional Amendment 27, thus adding Section 3 to Article XIV of the California Constitution. Article XIV, Section 3 was renumbered Article 10, Section 2 in 1976. [10/] The purpose of the section was to prevent the waste of state waters and to apply the requirement of reasonable beneficial use to riparian as well as non-riparian water users. [11/] The provision states that:

> It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of waters be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served and such right does not and shall not extend to the waste or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided however, that

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Rptr. 601, 607 (1975), hearing granted by the Cal. Supreme Court, No. 23,422, Feb. 26, 1976. For purpose of this paper water conservation is defined as any effort by private or public parties which would promote a more efficient use of water for a beneficial purpose.

10/ Renumbered June 8, 1976, CAL. CONST. art. 10, sec. 2.

11/ CALIFORNIA SECRETARY OF STATE, AMENDMENTS TO CONSTITUTION AND PROPOSED STATUTES WITH ARGUMENTS RESPECTING THE SAME TO BE SUBMITTED TO THE ELECTORS OF THE STATE OF CALIFORNIA AT THE GENERAL ELECTION ON TUESDAY, NOVEMBER 6, 1928 at 4.

> nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which the owner's land is riparian under reasonable methods of diversion and use, or as depriving any appropriator of water to which the appropriator is lawfully entitled. 12/

The following will review the meaning of the amendment, its scope of application, and the existing means for its enforcement.

A. What Does the Requirement Mean?

The 1928 Constitutional amendment did not create the concept of reasonable beneficial use. As to disputes among riparians 13/ the California courts had long restricted riparian uses to a "reasonable use of the water." 14/ Such a use did not include the right to waste water. 15/

12/ CAL. CONST., art.10, sec. 2.

13/ The riparian water right is a product of English common law. In 1850, the California Legislature adopted English common law where not inconsistent with State law. This adoption has been held to include the adoption of the riparian system. A riparian landowner has the right to the reasonable use of natural flow of the stream which passes his land. The right is not lost through nonuse and is essentially restricted to land adjacent to the stream and within the watershed. Prescription of riparian rights by upstream users or their subdivision from land adjacent to the stream and transfer without the expressed reservation of the riaprian right may result in the loss of that right. See generally Lux v. Haggin, 69 Cal. 255, 10 P. 674 (1886).

14/ Id. at 408-09. See also Senior v. Anderson, 130 Cal. 290, 296, 62 P. 563 (1900); Southern California Investment Co. v. Wilshire, 144 Cal. 68, 71, 77 P. 767 (1904); Mentone Irr. Co. v. Redlands etc. Co., 155 Cal. 323, 327, 100 P. 1082 (1909); Turner v. East Side Canal, etc. Co., 168 Cal. 103, 108, 142 P. 69 (1914).

15/ Lux v. Haggin, 69 Cal. 255, 393, 10 P. 674 (1886).

Holders of appropriative rights [16] had also been restricted to the amount of water "actually used and reasonably necessary for a useful purpose." [17] Such restriction discouraged waste by allowing other appropriators to claim any surplus flow. [18]

But, prior to the adoption of the 1928 amendment, riparian uses did not need to satisfy any test of "reasonableness" where the dispute involved a riparian and an appropriative claimant. The court in Miller & Lux v. Madera Canal etc. Co., stated the settled rule that:

16/ Appropriative water rights are of two varieties. Nonstatutory appropriations were appropriations initiated before December 19, 1914, the effective date of the Water Commission Act. Before 1872 the priority of the right related back to the first substantial act toward putting the water to beneficial use, provided the appropriation was completed with reasonable diligence; otherwise priority did not attach until beneficial use commenced. In 1872 Sections 1410 through 1422 of the California Civil Code were enacted. These sections established a permissive procedure for perfecting an appropriation of water. Provisions were made for posting a notice of appropriation at the proposed point of diversion and recording a copy thereof with the respective County Recorder. If the statutory procedures were followed and the appropriation completed with due diligence, priority of the right related back to the date of posting while the priority of an appropriator who did not comply with the Civil Code procedures did not attach until water was beneficially used.

Statutory appropriations involved appropriations under the Water Commission Act of 1913 and later the California Water Code (enacted in 1943). A prospective appropriator must file an application with the State Water Resources Control Board for a permit to appropriate water. The Water Code provides certain notice, protest and hearing requirements. In considering permit applications, the Board is granted a broad public interest mandate. Statutory appropriations are currently the exclusive method of appropriating water. See M. ARCHIBALD, APPROPRIATIVE WATER RIGHTS IN CALIFORNIA (Governor's Commission to Review California Water Rights Law, Staff Paper No. 1, 1977).

17/ Cal. etc. Co. v. Madera etc. Co., 167 Cal. 78, 84, 138 P. 718 (1914); Haight v. Costanich, 184 Cal. 426, 431, 194 P. 26 (1920); Pabst v. Finnand, 190 Cal. 124, 133, 211 P. 11 (1922).

18/ Hufford v. Dye, 162 Cal. 147, 159, 121 P. 400 (1912).

> As against an appropriator who seeks to divert water to nonriparian lands, the riparian owner is entitled to restrain any diversion which will deprive him of the customary flow of water which is or may be beneficial to his land. He is not limited by any measure of reasonableness. 19/

Thus, in Herminghaus v. Southern Cal. Edison Co., a riparian landowner obtained an injunction against an upstream appropriator who planned to construct dams and reservoirs. 20/ The court sustained the trial court's injunction even though the claimed riparian right required 97 to 99 percent of the stream flow to pass the riparian's land unused. 21/

The obviously wasteful result of the Herminghaus decision spurred the introduction of the 1928 Constitutional amendment. 22/ The amendment reversed the holding in Herminghaus and imposed the reasonable beneficial use requirement on riparian landowners. 23/ In addition, it embedded in the State Constitution the paramount policy of water conservation. At that time, water conservation apparently meant the impoundment of seasonal flood flows for agricultural, industrial and municipal development. Fresh water was considered wasted when it flowed into the sea. The following will trace the growth of the reasonable beneficial use requirement from its introduction in 1928.

19/ Miller & Lux v. Madera Canal etc. Co., 155 Cal. 59, 64, 99 P. 502 (1909).

20/ Herminghaus v. Southern Cal. Edison Co., 200 Cal. 81, 123, 252 P. 607 (1926).

21/ Id. See also CAL. SECRETARY OF STATE, supra note 11.

22/ CAL. SECRETARY OF STATE, supra note 11.

23/ CAL. CONST., art. 10, sec. 2.

1. Beneficial Purposes v. Reasonable Use

Even before the adoption of the 1928 Constitutional amendment, the courts had restricted appropriative right holders to water uses that served beneficial purposes and were reasonably necessary for such purposes. The court, in California Pastoral and Agricultural Co. v. Madera Canal and Irrigation Co., explained that:

> The effect of the decisions clearly appears to be that one actually diverting water under a claim of appropriation for a useful or beneficial purpose, cannot by such diversion acquire any right to divert more water than is reasonably necessary for such use or purpose, no matter how long a diversion in excess thereof has continued.... 24/

Thus, the appropriative right first must promote some "beneficial" purpose and, second, must be restricted to the amount "reasonably necessary" to secure such purpose.

In interpreting the 1928 Constitutional amendment, initially the Supreme Court merged the two requirements under the term "reasonable beneficial use." 25/ While the courts later hinted at the separate character of the requirements, it was not until the decision in Joslin v. Marin Municipal Water District, that the Supreme Court expressly stated the two requirements as independent Constitutional conditions:

> Article XIV, section 3, does not equate 'beneficial use' with 'reasonable use.' Indeed, the amendment in plain terms emphasizes that water must be conserved in California 'with a view of the reasonable and beneficial use thereof in the interest of the people,' that the right to use water 'shall be limited to such water as shall be reasonably required for the beneficial use to be served,' and that riparian rights 'attach to, but to no more than so much of the flow' as may be required in view of such reasonable and beneficial uses....' Thus, the very fact

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24/ Cal. etc. Co. v. Madera etc. Co., 167 Cal. 78, 85, 138 P. 718 (1914).

25/ Peabody v. Vallejo, 2 Cal.2d 351, 368-69, 40 P.2d 486 (1935).

> that a use may be beneficial to a riparian's lands is not sufficient if the use is not also reasonable within the meaning of section 3 of article XIV.... 26/

Thus, in applying this distinction, courts have held that the use of a stream to deposit rock and gravel used for commercial purposes, 27/ the use of water for military purposes, 28/ and the diversion of water for frost protection during a shortage period 29/ may all be beneficial uses, but may not necessarily be reasonable uses under the 1928 Constitutional amendment.

26/ Joslin v. Marin Mun. Water Dist., 67 Cal.2d 132, 143, 60 Cal. Rptr. 377, 429 P.2d 889 (1967) (emphasis in the original); The Court of Appeal in Orange County Water District v. Riverside, had earlier indicated that the 1928 amendment had added the concept of reasonable use to certain water uses. The court noted that:

> The essence of an overlying right, which is in that respect strictly analogous to a riparian right, is the right of its owner with due regard to the correlative rights of others owning lands overlying the same body of water to use on his overlying lands such water as he needs for beneficial uses or since the amendment of the State Constitution in 1928 (Article XIV, Section 3,) such water as he reasonably needs for such uses. In other words, since this 1928 amendment, the needs of such owner mean his reasonable needs and these are the measure of the right (emphasis added). 188 Cal. App.2d 566, 570-71, 10 Cal. Rptr. 899 (1961).

27/ Joslin v. Marin Mun. Water Dist., 67 Cal.2d 132, 143, 429 P.2d 889, 60 Cal. Rptr. 377 (1967).

28/ United States v. Fallbrook Public Utility District, 165 F. Supp. 806, 824 (S.D. Cal. 1958).

29/ People ex rel. State Water Resources Control Board v. Forni, 54 Cal. App.3d 743, 751, 126 Cal. Rptr. 851 (1976).

The courts have found numerous uses to be beneficial. Among those recognized are irrigation and other agricultural needs, [30/] power for mills and factories, [31/] and mining. [32/] Judicial determination of reasonable use has depended upon other factors such as existing circumstances, local custom, certain presumptions, and the public interest in water conservation.

2. A Case By Case Determination

It is settled that any determination of reasonable beneficial use is dependent upon the facts and circumstances of each case. [33/] The question is not determined by rule but rather by the evidence presented to the court or jury. [34/] In Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., the court, after indicating that certain winter irrigation was a reasonable beneficial use, observed that:

30/ Antioch v. Williams Irrigation Dist., 188 Cal. 451, 468, 205 P. 688 (1922).

31/ Menton Irr. Co. v. Redlands Elec. Light & Power Co., 155 Cal. 323, 327, 100 P. 1082 (1909); Fall River Valley Irr. Dist. v. Mt. Shasta Power Corp., 202 Cal. 56, 69-70, 259 P. 444 (1927).

32/ Hill v. King, 8 Cal. 336, 338 (1857).

33/ Joerger v. Pacific Gas and Electric Co., 207 Cal. 8, 22, 276 P. 1017 1929); Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 567, 45 P.2d 972 (1935); Prather v. Hoberg, 24 Cal.2d 549, 560, 150 P.2d 405 (1944); Carlsbad etc. Co. v. San Luis Rey etc. Co., 78 Cal. App.2d 900, 912, 178 P.2d 844 (1947); Rank v. Krug, 142 F. Supp. 1, 111-12 (S.D. Cal. 1956), aff'd in part, rev'd in part State of Cal. v Rank, 293 F.2d 340 (1961), rehearing 307 F.2d 96 (1962), aff'd in part City of Fresno v. State of Cal., 372 U.S. 627 83 S.Ct. 996, 10 L. Ed.2d 28 (1963), aff'd in part, rev'd in part Dugan v. Rank 372 U.S. 609, 83 S.Ct. 999, 10 L. Ed.2d 15 (1963); People ex rel. State Water Resources Control Board v. Forni, 54 Cal. App.3d 743, 750, 126 Cal. Rptr. 851 (1976).

34/ Joerger v. Pacific Gas and Electric Co., 207 Cal. 8, 22, 276 P. 1017 (1929).

> What may be a reasonable beneficial use, where water is present in excess of all needs, would not be a reasonable beneficial use in an area of great scarcity and great need. What is a beneficial use at one time may, because of changed conditions, become a waste of water at a later time. 35/

Thus, where the ground is hilly and porous and marked by numerous depressions, the use of flood irrigation may be a reasonable beneficial use. 36/ On the other hand, where riparian diversions during high demand periods would deplete the river and cause great harm to irrigated land, such diversions have been held to be unreasonable and may be enjoined. 37/

35/ Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 567, 45 P.2d 972 (1935) (emphasis added).

36/ Joerger v. Pacific Gas and Electric Co., 207 Cal. 8, 23, 276 P. 1017 (1929).

37/ People ex rel. State Water Resources Control Board v. Forni, 54 Cal. App.3d 743, 750, 126 Cal. Rptr. 851 (1976). In reviewing permit applications to appropriate water, the State Water Resources Control Board ("Board") will commonly determine whether a particular water use constitutes a reasonable beneficial use. Thus, the Board has considered the use of water for fish culture purposes as a beneficial riparian use of water as against a subsequent appropriator. Cal. State Water Rights Bd. Decision No. 928 at 11 (Mar. 18, 1959). The Board has also considered the uses of water for fire prevention, stock watering and wild life enhancement as beneficial uses of water. Cal. State Water Resources Control Bd. Decision No.1457 at 4 (Mar. 18, 1976). On the other hand, the Board has held that a riparian claim requiring a considerable flow for subirrigation purposes constitutes an unreasonable method of diversion and use. Cal. State Water Rights Bd. Decision No. 966 at 3 (May 16, 1960). Similarly, a diversion where only ten percent of the diverted water is put to beneficial use due to a poorly maintained diversion ditch has been held to be an unreasonable and nonbeneficial use. Cal. State Water Rights Bd. Decision No. 997 at 1-2 (Mar. 6, 1961). The use of water for the sole purpose of preventing freezing of pipes has been held to be a nonbeneficial use of water. Cal. State Water Rights Bd. Decision No. 1152 at 8 (Dec. 19, 1963). The irrigation of pasture a considerable period in advance of the active growing season has been classified as a nonbeneficial and nonreasonable use. Cal. State Water Resources Control Bd. Decision No. 1429 at 4 (October 4, 1973).

3. The Impact of Local Custom

Courts have frequently looked to local custom to determine whether a particular water use constitutes a reasonable beneficial use. 38/ In Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., the court formulated the following rule:

> In determining what is a reasonable quantity for beneficial uses, it is the policy of the state to require within reasonable limits the highest and greatest duty from the waters of the state. [Citation.] However an appropriator cannot be compelled to divert according to the most scientific method known. He is entitled to make a reasonable use of the water according to the general custom of the locality, so long as the custom does not involve unnecessary waste.

Thus, where other irrigation systems had a conveyance loss of between 42 and 57.9 percent, a conveyance loss of 40 to 45 percent was not considered unreasonable. 40/ Similarly, the reasonable beneficial use requirement does not require overlying landowners who pump from the underground basin to centralize, localize, or scatter their pumping, or unduly to deepen their wells, or to undertake any other operations entailing a substantial increase of cost merely to enhance the surplus for an exporter. 41/

38/ Joerger v. Pacific Gas and Electric Co., 207 Cal. 8, 23, 276 P. 1017 (1929); Witherill v. Brehm, 207 Cal. 574, 580, 279 P. 432 (1929); Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 547, 45 P.2d 972 (1935); Allen v. Calif. Water and Tel. Co., 29 Cal.2d 466, 483-84, 176 P.2d 8 (1946); But see Erickson v. Queen Valley Ranch Co., 22 Cal.App.3d 578, 584-85, 99 Cal. Rptr. 466 (1971).

39/ Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 547, 45 P.2d 972 (1935 (emphasis added).

40/ Id. at 572-73.

41/ Allen v. Cal. Water and Tel. Co., 29 Cal.2d 466, 483-84, 176 P.2d 8 (1946).

Finally, where the water usage for rice in other districts and areas was found to range from 8.1 acre-feet per acre to 12.1 acre-feet per acre, a water usage by a permit holder of 8.76 acre-feet per acre was found not to be wasteful. 42/

The Court of Appeal, in Erickson v. Queen Valley Ranch Co., has offered the most recent interpretation of the local custom rule. 43/ In Erickson, the use of a porous ditch resulted in absorption loss of five-sixths of the appropriated flow. 44/ The trial court had asserted that the conveyance losses "are not unreasonable and are similar to the custom or practice of this locality." 45/ The Court of Appeal subsequently declared that:

> By holding that transmission losses amounting to five-sixths of the flow are reasonable and consistent with local custom, the court effectually placed the seal of judicial approval on what appears to be an inefficient and wasteful means of transmission. Such a holding is not in conformity with the demands of article XIV, section 3. 46/

The court noted that other ditches within the area lost much of their flow through absorption and evaporation. 47/ But, citing Tulare, the court still concluded that:

> An excessive diversion of water for any purpose is not a diversion for beneficial use. 48/

42/ Cal. State Water Rights Board, Decision No. 1224 at 15-16 (June 30, 1965).

43/ Erickson v. Queen Valley Ranch Co., 22 Cal. App.3d 578, 584-585, 99 Cal. Rptr. 466 (1971).

44/ Id. at 584.

45/ Id.

46/ Id. at 585.

47/ Id.

48/ Id.

The Erickson decision thus suggests that the constitutional policy of water conservation may not protect "excessive" use, even though such use may be congruent with local custom. However, this matter has yet to be determined by the California Supreme Court.

4. Presumption That Existing Use Is a Reasonable Beneficial Use

In initially developing the concept of reasonable beneficial use, the California courts adopted the presumption that the long-continued use of a given quantity of water would be a reasonable beneficial use. The court in Tulare observed that:

> Proof of long-continued use of a definite quantity, however, under the proper circumstances, may raise a presumption the use was necessary for it is not reasonable to suppose that one would destroy or impair the value of his land by the use of an excessive amount. 49/

The Tulare court reasoned that it would be unlikely that:

> men, who have located and built up a thriving community, would make such a grievous mistake as deliberately to cause their lands to become water logged and depreciated for all the purposes of husbandry. 50/

This presumption does not appear to have substantial current impact.

While the presumption had commonly been used to determine reasonable use prior to the adoption of the 1928 amendment, 51/ only the Tulare

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49/ Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 547-48, 45 P.2d 972 (1935); See also Joerger v. Pacific Gas and Electric Co., 207 Cal. 8, 22-23, 276 P. 1017 (1929).

50/ Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 572, 45 P.2d 972 (1935).

51/ Joerger v. Pacific Gas and Electric Co., 207 Cal. 8 22-23, 276 P. 1017 (1929). Cal. etc. Co. v. Madera etc. Irr. Co., 167 Cal. 78, 87, 138 P. 718 (1914); Campbell v. Ingram, 37 Cal. App. 728, 731, 174 P. 366 (1918); Stinson Canal Co. v. Lemoore Canal & Irr. Co., 45 Cal. App. 241, 252, 188 P. 77 (1919).

opinion has applied the presumption since the passage of the Constitutional amendment. [52/] Furthermore, the presumption appears to be one that affects the burden of producing evidence, not the burden of proof. This classification becomes important in weighing the impact of the presumption. A presumption affecting the burden of producing evidence is a presumption which is not intended to implement public policy other than the facilitation of the particular action in which the presumption is applied. [53/] On the other hand, a presumption affecting the burden of proof is a presumption which is intended to implement a particular public policy. [54/]

52/ Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist. 3 Cal.2d 489, 547-48, 45 P.2d 972 (1935).

53/ Cal. Evid. Code, Section 603 (West 1966).

54/ Cal. Evid. Code, Section 605 (West 1966). The impact of a presumption affecting the burden to produce evidence is to require the trier of fact to assume the existence of the presumed fact until contrary evidence is introduced. At the moment such evidence is introduced, the presumption may be disregarded. Cal. Evid. Code Section 603 (West 1966). The impact of a presumption affecting the burden of proof is to impose upon the party against whom the presumption operates the burden of proof as to the nonexistence of the presumed fact. Cal. Evid. Code, Section 606 (West 1966). This latter presumption imposes a much stronger inference. The presumption that an existing use of water is a reasonable beneficial use does not appear to promote any particular public policy outside of encouraging expeditious decision making. If the reasonable beneficial use requirement imposes any particular policy preference, it would be a policy of encouraging the most efficient utilization of water for beneficial purposes. Thus, even if the presumption remains operative law, the mere presentation of contrary evidence would appear to remove the inference from consideration by a trier of fact.

5. Legislative Determinations as to Reasonable Beneficial Use

There exists a legislative as well as a Constitutional mandate to conserve water. Water Code Sections 100 and 101 repeat the water conservation language of the 1928 Constitutional amendment. [55/] In addition, the Legislature has declared certain uses as being "beneficial" or "reasonable beneficial" uses. Groundwater uses and instream recreational and aesthetic uses have drawn the primary attention of the Legislature.

In adopting Section 1242 of the Water Code, the Legislature found that the underground storage of surface water constituted a beneficial use where the water was applied to the beneficial purposes for which originally appropriated. [56/] In adopting Section 1005.1, the Legislature declared that the reduction in the use of groundwater resulting from the use of an alternative nontributory supply constituted a reasonable beneficial use for purposes of establishing or maintaining a groundwater right. [57/] The section defines "nontributory sources" as water imported from another watershed or water saved through water conservation efforts which would have been otherwise lost to the water supply. [58/] Sections 1005.2 and

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55/ Cal. Water Code, Sections 100 and 101 (West 1971).

56/ Cal. Water Code, Section 1242 (West 1971).

57/ Cal. Water Code, Section 1005.1 (West Supp. 1977).

58/ Id.

1005.4 apply a similar declaration of reasonable beneficial use to the reduction of groundwater extraction by the use of nontributary water which results in replenishment of the underground supply. 59/

The Legislature has further found that certain recreation and wildlife uses constitute reasonable beneficial uses of water. Section 1243 of the Water Code declares that the use of water for recreation and preservation and enhancement of fish and wildlife resources is a beneficial use of water. 60/ Section 5093.50 of the Public Resources Code, the preamble to the California Wild and Scenic Rivers Act, states that:

> It is the policy of the State of California that certain rivers which possess extra-ordinary scenic, recreational, fishery or wildlife values, shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state. The Legislature declares that such use of these rivers is the highest and most beneficial use, and is a reasonable and beneficial use of water within the meaning of Section 3 of Article XIV of the State Constitution. 61/

59/ Cal. Water Code, Sections 1005.2 and 1005.4 (West Supp. 1977). Under the doctrine of mutual prescription, the allocation of groundwater rights may depend upon prior pumping practice. This doctrine then discourages the use of alternate nontributary sources and encourages the overuse of the groundwater supply. Sections 1005.1, 1005.2 and 1005.4 seek to encourage the use of alternate sources by removing the potential for any corresponding forfeiture of groundwater rights. See A. SCHNEIDER, GROUNDWATER RIGHTS IN CALIFORNIA (prepared for the Governor's Commission to Review California Water Rights Law, Staff Paper No. 2, 1977) for a detailed review of California groundwater rights.

60/ Cal. Water Code, Section 1243 (West 1971).

61/ Cal. Public Resources Code, Section 5093.50 (West Supp. 1977) (emphasis added).

The Legislature has not gone beyond these case by case efforts to create a comprehensive scheme for the determination of reasonable beneficial uses.

6. The Public Interest and the Paramount Policy of Water Conservation

In interpreting the Constitutional mandate, the courts have considered the public interest in determining reasonable beneficial use. In Peabody v. City of Vallejo, an early decision interpreting Article 10, Section 2, an appropriator sought to impound the storm and freshet waters in excess of the normal flow to the detriment of a downstream riparian. 62/ In denying the riparian the right to the undiminished flow of the stream, the court observed that:

> Water is constantly shifting, and the supply changes to some extent every day. A stream supply may be divided but the product of the division in nowise remains the same. When the supply is limited public interest requires that there be the greatest number of beneficial uses which the supply can yield. 63/

The courts have defined the public interest in terms of the paramount policy of water conservation. In Gin S. Chow v. City of Santa Barbara, riparian landowners were again claiming the right to the unobstructed flow of the stream against upstream appropriators. 64/ The court observed that:

> The present and future wellbeing and prosperity of the state depend upon the conservation of its life-giving waters.... The conservation of other natural resources is of importance, but the conservation of the waters of the state is of transcendent importance. Its waters are the very lifeblood of its existence. 65/

62/ Peabody v. City of Vallejo, 2 Cal.2d 351, 360-61, 40 P.2d 486 (1935).

63/ Id. at 368; City of Pasadena v. City of Alhambra, 33 Cal.2d 908, 925, 207 P.2d 17 (1949).

64/ Gin S. Chow v. City of Santa Barbara, 217 Cal. 271, 679-80, 22 P.2d 5 (1933).

65/ Id. at 701-02 (emphasis added).

Thus, both the Peabody and the Gin S. Chow decisions suggest that Article 10, Section 2 imposes a strong public interest mandate to conserve water for beneficial purposes.

The 1967 California Supreme Court decision in Joslin v. Marin Mun. Water Dist. further supports this view of the Constitutional provision. In Joslin, the plaintiff owned land riparian to the stream and sold the rock and gravel which the normal flow of the creek deposited on his land. 66/ The defendant constructed a dam across the creek which blocked the stream flow and eliminated the replenishment of the gravel. 67/ The court, in denying the claims of the riparian landowner, explained that:

> Although, as we have said, what is a reasonable use of water depends on the circumstances of each case, such an inquiry cannot be resolved in vacuo isolated from statewide considerations of transcendent importance. Paramount among these we see the ever increasing need for the conservation of water in this state, an inescapable reality of life quire apart from its express recognition in the 1928 amendment. On the other hand, unlike the unanimous policy pronouncements relative to the use and conservation of natural waters, we are aware of none relative to the supply and availability of sand, gravel and rock in commercial quantities. Plaintiffs do not urge that the general welfare or public interest requires that particular or exceptional measures be employed to insure that such natural resources be made generally available and should therefore be carefully conserved.
>
> Is it 'reasonable,' then, that the riches of our streams, which we are charged with conserving in the great public interest, are to be dissipated in the amassing of mere sand and gravel which for aught that appears subserves no public policy? We cannot deem such a use to be in accord with the constitutional mandate that our limited resources be put only to those beneficial uses 'to the fullest extent of

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66/ Joslin v. Marin Mun. Water Dist., 67 Cal.2d 132, 134-35, 429 P.2d 889, 60 Cal. Rptr. 377 (1967).

67/ Id.

> which they are capable,' that 'waste or unreasonable use' be prevented, and that conservation be exercised 'in the interest of the people and for the public welfare.' (Cal. Const., art. XIV, Sec. 3.) 68/

Thus, the court in Joslin looked to the public interest in the competing use of the municipal water district as well as the public interest in the claimed use of the private party before making a determination as to reasonable beneficial use.

7. A Duty to Reclaim?

a. Environmental Defense Fund v. East Bay Municipal Utility District

The Environmental Defense Fund, Inc. v. East Bay Municipal Utility District litigation, now before the California Supreme Court, has posed the question of whether the 1928 Constitutional amendment imposes a duty to reclaim waste water where economically feasible. 69/ Plaintiffs in this case alleged that the defendants' decision not to develop waste water reclamation facilities and their decision to seek supplemental fresh water supplies by contract with the Bureau of Reclamation violated the 1928 Constitutional amendment. 70/ The defendants responded by arguing that

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68/ Id. at 140-41 (emphasis added).

69/ Environmental Defense Fund, Inc. v. E. Bay Mun. Utility Dist., 125 Cal. Rptr. 601 (1975), hearing granted by Cal. Supreme Ct., No. 23,422, Feb. 26, 1976. Waste water is the used water, liquid waste, and drainage of a community, industry, or institution. Waste water reclamation is the process of treating waste water to produce water for beneficial uses, its transportation to the place of use and its actual use. CAL. DEPARTMENT OF WATER RESOURCES, BULL. NO. 189, WASTE WATER RECLAMATION, STATE OF THE ART 42 (1973).

70/ Opening Brief of Appellant at 24, Environmental Defense Fund, Inc. v. E. Bay Mun. Utility Dist., Ct. of Appeal, 1st App. Dist., Civil No. 33,624, decision at 125 Cal. Rptr. 601, hearing granted by Cal. Supreme Ct., No. 23,422, Feb. 26, 1976.

a failure to reclaim water was not a violation of the amendment and that an appropriator was not required to "divert according to the most scientific method known."[71/] The Court of Appeal held that the plaintiffs' complaint had stated a justiciable issue and that the defendants' general demurrer to the complaint should have been overruled. [72/] The defendants have appealed to the California Supreme Court and a hearing was granted on February 26, 1976.

It is important to note that the Court of Appeal did not determine that the 1928 Constitutional amendment imposed an inflexible duty to engage in waste water reclamation. The court only stated that:

> It is our conclusion that appellants have therefore raised a justiciable issue in connection with their first cause of action. It may very well be, however, that at a trial they may not be able to offer sufficient evidence to demonstrate that recycling or reclaiming water has yet become an economically practical or feasible method of preventing waste in connection with respondent EBMUD's operations. [73/]

Thus, the duty to reclaim, if sustained, would be conditioned upon the economic feasibility of the reclamation project. [74/]

[71/] Brief of Respondent at 23, Environmental Defense Fund, Inc. v. E. Bay Mun. Utility Dist., Ct. of Appeal, 1st App. Dist., Civil No. 33,624, decision at Cal. Rptr. 601, hearing granted by Cal. Supreme Ct., No. 23,422, Feb. 26, 1976.

[72/] Environmental Defense Fund, Inc. v. E. Bay Mun. Utility Dist., 125 Cal. Rptr. 601 at 615, hearing granted by Cal. Supreme Ct., No. 23,422, Feb. 26, 1976.

[73/] Id.

[74/] Upon issuance of an order granting a hearing, the opinion of the Court of Appeal ceases to have any effect, except perhaps to serve as a brief on the questions discussed, or a draft of an opinion to be adopted. 6 WITKIN, CAL. PROCEDURE, Section 617 (2d ed. 1971).

b. State Policy Towards Reclamation

While it is unclear whether the 1928 Constitutional amendment imposes a duty to reclaim waste water, state policy has increasingly favored such reuse of water.

In 1966, the Assembly Interim Committee on Water urged the California Legislature to adopt a clear policy statement encouraging the maximum reuse of reclaimed water. 75/ This recommendation resulted in the passage of the Water Reclamation Law in 1969. The legislation declared a state policy favoring waste water reclamation, 76/ authorized a loan program for the development of waste water reclamation facilities, 77/ provided procedures for state-wide health regulation of waste water reuse, 78/ and granted the Department of Water Resources responsibility for surveys and investigations regarding waste water reclamation. 79/

In 1974, the Legislature passed the Waste Water Reuse Law which declared that:

> [T]he primary interest of the people of the state in the conservation of all available water resources requires the maximum reuse of waste water in the satisfaction of requirements for beneficial uses of water. 80/

75/ Cal. Leg., Assembly Interim Committee on Water, New Horizons in California Water Development, 1965-1967, Vol. 26, No. 16 at 19 (December, 1966).

76/ Cal. Water Code, Sections 1351D-12 (West 1971).

77/ Cal. Water Code, Section 13515 (West 1971).

78/ Cal. Water Code, Sections 13520-28 (West Supp. 1977).

79/ Cal. Water Code, Section 13530 (West 1971).

80/ Cal. Water Code, Section 461 (West Supp. 1977).

The legislation further provided the Department of Water Resources with additional authority to study the potential of waste water reuse and the development of reclamation technology. 81/

State Water Resources Control Board regulations reflect the State's policy of encouraging waste water reclamation. 82/ When acting on a permit application, a petition for change or a petition for extension of time, the Board may reduce the amount of water specified in the application or permit where there exists a "reasonable" waste water reclamation alternative. 83/ The Board may require a new permittee or an existing permittee who seeks an extension of time to adopt a waste water reclamation program where such "requirements are physically and financially feasible and are appropriate to the particular situation." 84/ In exercising its authority to investigate waste and unreasonable use, the Board is required to give particular consideration to the reasonableness of use of reclaimed water or reuse of water. 85/ Finally water rights permittees and licensees are periodically required to report the potential for using reclaimed water or reusing water to meet all or part of their water needs. 86/

81/ Cal. Water Code, Section 462-64 (West Supp. 1977).

82/ CAL. STATE WATER RESOURCES CONTROL BOARD, POLICY AND ACTION PLAN FOR WATER RECLAMATION IN CALIFORNIA 23 (1977).

83/ 23 Cal. Admin. Code, Section 654.4.

84/ 23 Cal. Admin. Code, Section 761(a).

85/ 23 Cal. Admin. Code, Section 764.9.

86/ 23 Cal. Admin. Code, Section 783.

B. To Whom Does the Requirement Apply?

The courts had applied a reasonable use requirement to a variety of water uses prior to the 1928 Constitutional amendment. Reasonable use had been the measure of the water rights as between riparian landowners, [87/] as between overlying landowners, [88/] as between appropriators, [89/] as between overlying owners and exporters from an underground basin to non-overlying lands, [90/] and as between riparian owners and overlying owners under the doctrine of common source of supply. [91/] But until the amendment, the courts had refused to apply the requirement as between a riparian owner and an appropriator. [92/]

87/ Pabst v. Finnand, 190 Cal. at 124, 129, 211 P. 11 (1922).

88/ Katz v. Walkinshaw, 141 Cal. 116, 134, 70 P. 766 (1902).

89/ Natoma W. & M. Co. v. Hancock, 101 Cal. 42, 51-52, 31 P. 112 (1894).

90/ Burr v. Maclay Rancho Water Co., 154 Cal. 428, 436, 98 P. 260 (1908).

91/ Hudson v. Dailey, 156 Cal. 617, 625-26, 105 P. 748 (1909).

92/ Cal. etc. Co. v. Madera etc. Co., 167 Cal. 78, 85, 138 P. 718 (1914); Herminghaus v. Southern Cal. Edison Co., 200 Cal. 81, 123, 252 P. 607 (1926); Peabody v. City of Vallejo, 2 Cal.2d at 367, 2 Cal.2d 351, 367, 40 P.2d 486 (1935); Rank v. Krug, 142 F. Supp. 1, 108 (S.D. Cal. 1956).

The courts have subsequently applied the restriction to conflicts between overlying landowners and appropriators, [93/] and between overlying landowners and holders of pueblo rights. [94/] Currently in controversy is the question of whether a court may apply the requirement in pursuing water conservation goals where neither party to the litigation can claim a traditional water right to the use of water.

In Environmental Defense Fund, Inc. v. East Bay Municipal Utility District, the plaintiffs were not water rights holders to the disputed water course (the American River) and the defendants held an interest to the water under a water service contract executed with the U.S. Bureau of Reclamation. [95/]

93/ Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 524, 45 P.2d 972 (1935); City of Lodi v. E. Bay Mun. Utility Dist., 7 Cal.2d 316, 338, 60 P.2d 439 (1936).

94/ City of Los Angeles v. City of Glendale, 23 Cal.2d 68, 74-75, 142 P.2d 289 (1943); City of Los Angeles v. City of San Fernando, 14 Cal.3d 199, 245-45, 537 P.2d 1250, 123 Cal. Rptr. (1975). Pueblo water rights are the rights of a city as successor of a Spanish or Mexican pueblo (village or town) to the use of the water flowing within the old pueblo limits. Under the old Spanish law waters were held by pueblos as common property for domestic use, irrigation, and other purposes. The scope of the right extends to the present and prospective needs of the city. It is a paramount right, superior to riparian and appropriative rights. In California, the pueblo rights of Los Angeles and San Diego have been judicially recognized. See 2 HUTCHINS, WATER RIGHTS LAWS IN THE NINETEEN WESTERN STATES 145-58 (1975).

95/ Environmental Defense Fund, Inc. v. E. Bay Mun. Utility Dist., 125 Cal. Rptr. 601, 603 (1975), hearing granted by Cal. Supreme Ct., No. 23,422, Feb. 26, 1976.

The plaintiffs claimed that the 1928 Constitutional amendment applied to "all water controversies." [96/] The defendants replied that the amendment was only intended to apply where the dispute involved conflicting water rights to a common source. [97/] The trial court refused to apply the constitutional provision, concluding that the provision only applies where the parties were rival claimants to property rights in the stream.[98/] The Court of Appeal reversed the trial court judgment, holding the amendment applicable to all water uses in the state. [99/] As previously noted, this case is currently pending before the California Supreme Court.

While the defendant district is correct in observing that there exists no appellate authority involving "an action by those who claim no water right against a purchaser of water from a federal project," [100/] the California courts have been willing to apply the constitutional mandate in cases where at least one of the parties claims interests in the

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96/ Opening Brief of Appellant at 12-13, Environmental Defense Fund, Inc. v. E. Bay Mun. Utility Dist.. Ct. of Appeal, 1st App. Dist., Civil No. 33,624, decision at 125 Cal. Rptr 601, hearing granted by Cal. Supreme Ct., No. 23,422, Feb. 26, 1976.

97/ Brief of Respondent at 16, Environmental Defense Fund, Inc. v. E. Bay Mun. Utility Dist., Ct. of Appeal, 1st App. Dist., Civil No. 33,624, decision at 125 Cal. Rptr. 601, hearing granted by Cal Supreme Ct., No. 23,422, Feb. 26, 1976.

98/ Environmental Defense Fund, Inc. v. E. Bay Mun. Utility Dist., 125 Cal. Rptr. 601, 610 (1975), hearing granted by Cal. Supreme Ct., No. 23,422, Feb. 26, 1976.

99/ Id.

100/ Respondents' Brief at 23.

water under a contract right, rather than a traditional property right. 101/

The resolution of this issue will have substantial impact on the character of water use in this state. In 1976, the State Water Project delivered 1,958,904 acre-feet of water to its long term water contractors. 102/ The U.S. Bureau of Reclamation delivered 5,980,000 acre-feet to its contractors within the Central Valley Project. 103/

C. What Statutory Mechanisms Are Available For the Enforcement of the Requirement?

While the 1928 Constitutional amendment provides the standard for the state's water conservation policy, the California Water Code provides

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101/ In City of Elsinore v. Temescal Water Co., the parties had executed an agreement whereby the defendant was allowed to construct a dam as long as the dam operation would maintain certain minimum levels in a lake near the plaintiff's property. The defendant had argued that the maintenance of the lake levels for recreational purposes was inconsistent with the reasonable beneficial use requirement. The court applied the reasonable beneficial use requirement in interpreting the contract rights of the parties and held that the recreational uses were not inconsistent with the constitutional mandate. City of Elsinore v. Temescal Water Co., 36 Cal. App.2d 116, 118, 97 P.2d 274 (1939).

In Stevinson Water District v. Roduner, the plaintiffs' predecessor in interest had executed an agreement with a third party for the delivery of foreign water to the river. The defendants alleged that they could appropriate any foreign water surplus to the needs of the plaintiffs. The court applied the reasonable beneficial use requirement to the plaintiffs' foreign water entitlement even though that entitlement was obtained by contract from a third party. Stevinson Water District v. Roduner, 36 Cal.2d 264, 275, 223, P.2d 209 (1950).

102/ Telephone conversation with Larry Swenson, Chief, Water Project Analysis Branch, Program Control and Policy Office, Cal. Department of Water Resources (June 22, 1977).

103/ Telephone conversation with Neil Schild, Regional Supervisor of the Division of Water and Land Operations, U.S. Bureau of Reclamation, Mid-Pacific Region (June 29, 1977).

the means for administrative enforcement. In Modesto Properties Co. v. State Water Rights Board, the court observed that:

> Although article 14, section 3 states that it is self-executing, it is evident that if the policy therein stated was to be made truly effective, it required legislative implementation. 104/

The following will review the "legislative implementation" of the constitutional mandate.

1. The Permit and License Process

The permit and license process for appropriating water provides considerable leverage for State enforcement of the reasonable beneficial use requirement.

a. The Permit Application Process

The permit application process provides the threshold deterrent to wasteful and unreasonable use. All applications to appropriate water must be for some useful or beneficial purpose. 105/ The applicant's intended use must be beneficial before the State Water Resources Control Board will issue a permit. 106/ The Board will only approve applications for amounts necessary for beneficial purposes plus reasonable conveyance losses. 107/ When reviewing permit applications the Board must consider all possible beneficial uses of the requested water and the possibility of its reuse or reclamation. 108/ The Board shall reduce the amount

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104/ Modesto Properties Co. v. State Water Rights Board, 179 Cal. App.2d 856, 860, 4 Cal. Rptr. 226 (1960) (emphasis in the original).

105/ Cal. Water Code, Section 1240 (West 1971).

106/ Cal. Water Code, Section 1375 (West 1971).

107/ 23 Cal. Admin. Code, Section 655.

108/ Cal. Water Code, Section 1257 (West 1971).

specified in the permit application to the extent that reused or reclaimed water is reasonable available. [109/] Finally, the Board must reject a permit application if, in its judgment, the proposed appropriation would not serve the public interest. [110/]

b. Reserved Jurisdiction

Assuming that an applicant is successful in obtaining a permit, the Board may possibly change the terms and conditions of the permit to encourage water conservation under Water Code Section 1394. This section allows the Board to reserve jurisdiction to amend, revise, supplement, or delete terms and conditions in a permit under certain limited conditions. [111/] The section authorizes such revisions:

> (a) If the Board finds that sufficient information is not available to finally determine the terms and conditions which will reasonably protect vested rights without resulting in waste of water or which will best develop, conserve, and utilize in the public interest the water sought to be appropriated, and that a period of actual operation will be necessary in order to secure the required information. (or)
> (b) If the application or applications being acted upon represent only part of a co-ordinated project, other applications for such project being pending, and the Board finds that the co-ordinated project requires co-ordinated terms and conditions which cannot reasonably be decided upon until decision is reached on said other pending applications. [112/]

Reserve jurisdiction shall be limited to a time period the Board finds "reasonably necessary" and shall be exercised only after notice to the parties and a hearing. Such jurisdiction cannot be exercised after the issuance of the license. [113/]

[109/] 23 Cal. Admin. Code, Section 654.4.

[110/] Cal. Water Code, Section 1255 (West 1971).

[111/] Cal. Water Code, Section 1394 (West 1971).

[112/] Id.

[113/] Id.

c. Enforcement of Permit Conditions and Terms

The Board may still revoke a permit if it finds that the permittee has not used the water for the beneficial purposes contemplated by the permit, the statute, or rules and regulations of the Board. 114/ The Board can revoke a permit or take other "appropriate" action if a permittee violates any permit term or condition. 115/

The Board has taken advantage of this authority by adopting broad permit terms granting the Board the continuing authority to prevent a permittee from wasting water. Since at least 1957, approved permit applications have contained the following provision or one similarly worded:

> All rights and privileges under this permit including method of diversion, method of use and quantity of water diverted are subject to the continuing authority of the State Water Rights Board in accordance with law and in the interest of public welfare to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water. 116/

In addition, the currently issued permits and licenses contain the following statement of the Board's continuing authority to prevent waste:

> The continuing authority of the board may be exercised by imposing specific requirements over and above those contained in this permit with a view to minimizing waste of water and to meeting the reasonable water requirements of permittee without unreasonable draft on the source. Permittee may be required to implement such programs as (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses

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114/ Cal. Water Code, Section 1410 (West Supp. 1977).

115/ 23 Cal. Admin. Code, Section 764.6.

116/ Cal. State Water Rights Board, Decision No. 869 at 26 (February 7, 1957).

> from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation. 117/

The Board adopted this provision in 1972 but has not commonly invoked its specific requirements. 118/

d. The Licensing Process

In addition, the Board may intervene to prevent waste and unreasonable use at the licensing stage of the appropriation process. A permittee may obtain a license after completion of the planned diversion works and after application of the water to beneficial use. The permittee submits a report of completion to the Board and the Board reviews the operation "to determine the amount of water that has been applied to beneficial use and whether the construction of the works and the use of the water therefrom is in conformity with law, the rules and regulations of the board, and the permit." 119/ A license "confirms the right to the appropriation" and is issued only for the "amount of water as has been determined to have been applied to beneficial use." 120/ The license is effective as long as the water actually appropriated under it is used for a useful and

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117/ 23 Cal. Admin. Code, Section 761(a).

118/ Cal. State Water Resources Control Board, Decision No. 1404 at 9 (November 2, 1972).

119/ Cal. Water Code, Sections 1600 and 1605 (West 1971).

120/ Cal. Water Code, Section 1605 (West 1971).

beneficial purpose. [121] The Board may revoke a license if it finds the licensee has failed to put the water to a useful or beneficial purpose or that the licensee has violated a term or condition of the license. [122]

2. Water Code Sections 1051 and 1052

Water Code Sections 1051 and 1052 may provide an additional method for the enforcement of the reasonable beneficial use requirement. Section 1051 states, in part, that:

> The board for the purpose of this division may ... (c) Ascertain whether or not water heretofore filed upon or attempted to be appropriated is appropriated under the laws of this State. [123]

Section 1052 then provides that:

> The diversion or use of water subject to the provisions of the division other than as authorized in this division is a trespass, and the board may institute in the superior court in and for any county wherein such diversion or use is attempted appropriate action to have such trespass enjoined. [124]

Thus, the Board may seek injunctive relief as to unauthorized diversions. [125]

The Board has traditionally applied Section 1052 in situations where a diverter has completely disregarded the permit process. [126] A broader interpretation would apply the injunctive remedy to permit or license holders who unconstitutionally waste water. As previously noted, all appropriations

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121/ Cal. Water Code, Section 1627 (West 1971).

122/ Cal. Water Code, Section 1675 (West Supp. 1977).

123/ Cal. Water Code, Section 1051 (West 1971).

124/ Cal. Water Code, Section 1052 (West 1971).

125/ Meridian Ltd. v. San Francisco, 13 Cal.2d 424, 450, 91 P.2d 105 (1939).

126/ State of Cal. v. Hansen, 189 Cal. App.2d 604, 610, 11 Cal. Rptr. 335 (1961).

must be for a useful or beneficial purpose [127/] and must serve the public interest. [128/] An unconstitutionally wasteful use of water would therefore not appear to be an "authorized" diversion or use under Section 1052. Section 1051 would provide the Board with a fact finding machanism to assist in the determination of whether any particular diversion or use was "authorized" or "unauthorized." After the factual determination, the Board could then seek the injunctive relief authorized under Section 1052.

The restricted scope of a Section 1052 action might partially explain its nonuse as a tool to enforce the reasonable beneficial use requirement. The section appears to be restricted to those diverters who appropriate water in violation of the permit and licensing provisions of the Water Code. The section does not appear to cover groundwater users or contract right users. The major reason, though, for the nonuse of Section 1052 as an enforcement tool, is the presence of a much broader, alternative enforcement process in Water Code Section 275.

3. Water Code Section 275

Water Code Section 275 provides the clearest administrative basis for the enforcement of the reasonable beneficial use requirement. It is applicable to a broad range of water users and is enforceable in a wide number of proceedings. The section states that:

> The department and the board shall take all appropriate proceedings or actions before executive, legislative or judicial agencies to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this state. [129/]

[127/] Cal. Water Code, Section 1240 (West 1971).

[128/] Cal. Water Code, Section 1255 (West 1971).

[129/] Cal. Water Code, Section 275 (West Supp. 1977).

The section thus imposes on the Department of Water Resources and the State Water Resources Control Board a mandatory duty to protect the public from the wasteful use of water. It is a duty that, until recently, has not been exercised.

Section 275 originated as part of a 1939 amendment to the Water Commission Act. [130/] Immediately preceding the provision and contained within the same section of the amendment was the statutory enunciation of the reasonable beneficial use requirement. [131/] Thus, the Legislature chose at one time to declare the statutory policy of water conservation and to impose the administrative duty of enforcement on the then Division of Water Resources. A 1943 amendment

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130/ Ch. 838 Section 1 (1939) Cal. Stats. 3911.

131/ The relevant portion of the amendment stated:

> SECTION 1. Section 1 of the Water Commission Act is hereby amended to read as follows:
> Section 1. It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or watercourse in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion. The Division of Water Resources is authorized and directed to take any and all appropriate proceedings or actions before executive, legislative or judicial tribunals to prevent waste, or unreasonable use, or unreasonable method of use, or unreasonable method of diversion of waters in this State. (emphasis added) Ch. 838 Section 1 (1939) Cal. Stats. 3911.
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> The last sentence was later codified as Water Code Section 275. The preceeding portion of the paragraph became Water Code Section 100. Ch. 368, Sections 100 and 275 (1943) Cal. Stats. 1606, 1608.

substituted the words "shall take" for the words "is authorized to take." [132/] A 1971 amendment added the State Water Resources Control Board as an enforcing agency. [133/] It has only been subsequent to the 1971 amendment that there has been active administrative implementation of Section 275. Administrative enforcement has included Board initiated judicial action, Board investigations, and the proposal of joint Department of Water Resources and Board regulations.

The Board, in People ex rel. State Water Resources Control Board v. Forni, charged that the direct diversion by riparian landowners of water during the frost period that resulted in the depletion of the stream constituted an unreasonable method of diversion within the meaning of the 1928 Constitutional amendment and Water Code Section 100. [134/] The Board argued that Section 275 granted it the authority to seek injunctive and declaratory relief. The Court of Appeal, in sustaining the Board's contention, noted that:

> [W]e summarily reject the argument that the Board had no statutory authority to bring an action in which the reasonableness of respondents' water use could be adjudicated. Section 275 does confer such authority upon appellant Board by providing that "The department and board shall take all appropriate proceedings or actions before executive, legislative, or judicial agencies to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this State." [135/]

Thus, the Forni decision confirmed the Board's authority to seek enforcement of the reasonable beneficial use requirement through judicial action.

132/ Ch. 368, Section 275 (1943) Cal. Stats. 1608.

133/ Ch. 794, Section 275 (1971) Cal. Stats. 1545.

134/ People ex rel. State Water Resources Control Board v. Forni, 54 Cal. App.3d 743, 747, 126 Cal. Rptr. 851 (1976).

135/ Id. at 753 (emphasis in original).

Investigations by the Board regarding reasonable beneficial use have been a more common method of implementing Section 275. Board regulations provide that:

> Upon application of any interested or affected person, or upon the board's own motion, and in furtherance of Water Code Sections 100, 101, 275, 304, and 305, the Division of Water Rights shall investigate any waste, unreasonable use, unreasonable method of use, unreasonable method of diversion of water, or any public nuisance as defined in Water Code Section 305. 136/

After the investigation, the Board may hold a hearing to determine if waste or unreasonable use has occurred. The Board may then issue an order to prevent or terminate any such waste. 137/ In the event a water user fails to comply with an order, the Board may revoke any permit or license it may have granted to the user or it may request the State Attorney General to take any "appropriate legal action." 138/

Under these regulations the Board has found that certain diversions of nonflood flows by a flood control district resulting in environmental harm constitute waste and an unreasonable method of diversion of water. 139/ Similarly the Board has concluded that the filling of an artificial lake during a period of severe drought constitutes waste and unreasonable use of water. 140/ On the other hand, the Board has determined that the

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136/ 23 Cal. Admin. Code, Section 764.10.

137/ 23 Cal. Admin. Code, Section 764.11.

138/ 23 Cal. Admin. Code, Section 764.13.

139/ Cal. State Water Resources Control Board, Decision No. 1460 at 6 (October 27, 1976).

140/ Cal. State Water Resources Control Board, Decision No. 1463 at 4 (March 2, 1977). The Board has subsequently determined that the applicant's proposal to fill the lake with degraded groundwater did not constitute waste and unreasonable use. Cal. State Resources Control Board, Decision No. 1469 at 6 (June 16, 1977).

intensified use of groundwater did not constitute an unreasonable use of water where the complaining parties failed to present sufficient evidence to establish waste. 141/

Recently, the Board and the Department have sought to implement Water Code Section 275 through the promulgation of joint regulations. The proposed regulations contain a statement of policy regarding waste and unreasonable use, an enunciation of principles based on judicial opinions and Board administrative decisions, certain guidelines for urban water use, guidelines for irrigation water use, and examples of reasonable and unreasonable uses. 142/

The Board clearly has authority to adopt regulations interpreting reasonable beneficial use. 143/ But the Court of Appeal in People ex rel. State Water Resources Control Board v. Forni has strictly interpreted this authority by holding that such regulations constitute "no more than a policy statement which leaves the ultimate adjudication of reasonableness to the judiciary." 144/

141/ Cal. State Water Resources Control Board, Decision No. 1470 at 10 (June 16, 1977).

142/ Cal. Water Resources Control Board, Proposed Principles and Guidelines (May 20, 1977).

143/ People ex rel. State Water Resources Control Board v. Forni, 54 Cal. App.3d 743, 752, 126 Cal. Rptr. 851 (1976).

144/ Id.

In spite of the recent administrative activity, the history of Water Code Section 275 has been one of neglect rather than active implementation. Both the Department and the Board have the authority to investigate unreasonable use and to pursue judicial action. That authority appears to extend to all water users regardless of the user's claim of right. 145/

145/ The Board has invoked its investigative authority under Water Code Section 275 when considering surface diversions, groundwater extraction and contract rights. Cal. State Water Resources Control Board, Decision No. 1460 (October 27, 1976); Cal. State Water Resources Control Board, Decision No. 1470 (June 16, 1977); Cal State Water Resources Control Board, Decision No. 1463 (March 2, 1977).

II. Water Rights Consequences of Water Conservation

A. Water Rights in Conserved Water

The water in a stream is commonly reused over and over again. Downstream irrigators will use the return flows of upstream users. Municipalities will treat and sell their waste water. Water from one person's irrigation canal may seep onto the land of another. Water conservation efforts such as the reclamation of waste water or the clearance of water consumptive plants will alter existing water use patterns and may therefore affect the water rights of existing users.

A determination of the impact of water conservation efforts will depend, in part, upon the judicial classification of the water in question. Unfortunately, the California courts have not been precise when considering these classifications. The terms salvage water, return flow, and waste and seepage water have often been used interchangeably. Yet, courts may reach very different results depending upon the particular water classification.

1. Salvage Water

Salvage waters are parts of a particular stream or other water supply that have been unavailable, as far as any beneficial use is concerned, to any of the established users, but are made available by artificial means. 146/ Examples are water saved through the application of an evaporation retardant

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146/ 2 HUTCHINS, supra note 94 at 565.

film to the surface of a reservoir or the removal of highly water consumptive plants from the watercourse. [147/] Salvage water should be distinguished from developed water in that salvage water rehabilitates existing water supplies whereas developed water introduces new water into an existing water supply. [148/] Developed water would include groundwater that was pumped and transferred into a stream for later use. [149/] Salvage water should also be distinguished from return waters. Such waters consist of waters diverted for irrigation or other uses that return to the stream from which diverted or to some other stream. [150/]

The following will be limited to the issue of salvage water rights, particularly these questions: 1) Who may properly claim rights in salvage water, and 2) What is the character of such rights once properly claimed?

a. Who May Claim Salvage Rights?

1) The Salvagor's Right to Salvaged Water

The general rule is that the person who salvages the water is entitled to use it provided that the use does not infringe upon the prior rights of others. [151/] An upstream user who had diverted the flow of a stream that

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147/ Transpiration through phreatophytes annually removes twenty to twenty-five million acre-feet from the nation's water courses. U. S. Senate Select Committee on National Water Resources, Report of the Committee Pursuant to S. Res. 48, Sen. Rpt. No. 29, 86th Cong., 1st Sess. 108-109 (1961).

148/ 2 HUTCHINS, supra note 94. See also Vernon Irrigation Co. v. Los Angeles, 106 Cal. 237, 253, 39 P. 762 (1895).

149/ HUTCHINS, THE CALIFORNIA LAW OF WATER RIGHTS 385 (1956).

150/ 2 HUTCHINS, supra note 94 at 568.

151/ HUTCHINS, supra note 149 at 383.

would have been lost through evaporation and absorption on his land and who had agreed to deliver to the downstream user the amount in excess of evaporation and absorption loss has been held entitled to the amount of water he has salvaged. 152/ Where a party has replaced an open ditch with an enclosed pipe system, the salvaging party has been held entitled to the salvaged water. 153/ Where seepage, percolation and evaporation have reduced the stream flow by 19 percent before the flow reaches the dam, the upstream user has been held entitled to divert the otherwise lost water as long as the pre-existing flows at the dam were maintained. 154/

Courts have reached these results by noting that a downstream user may only complain when an upstream use, in fact, injures the downstream user. Where the upstream use does not affect the downstream user, no action should be available to that user. The court in Wiggins v. Muscupiabe Land and Water Co. succinctly noted that:

> The plaintiff could under no circumstances be entitled to the use of more water than would reach his land by the natural flow of the stream. 155/

152/ Wiggins v. Muscupiabe Land and Water Co., 113 Cal. 182, 195, 45 P.160 (1896).

153/ Bledsoe v. Decrow, 132 Cal. 312, 315, 64 P. 397 (1901).

154/ Pomona Land and Water Co. v. San Antonio Water Co., 152 Cal. 618, 623-24, 93 P. 881 (1908).

155/ Wiggins v. Muscupiabe Land and Water Co., 64 P. 397 (1901), 113 Cal. 182, 196, 45 P. 160 (1896). In Bledsoe v. Decrow, 132 Cal. 312, 315, the court noted that, "In this case, if the defendant's waste water in conducting it through their ditches, it may be that by pipes or otherwise they can hereafter save it, and thus have the full benefit of all they own. The appropriation must be for some useful or beneficial purpose. It may be conducted through ditches, flumes, or pipes. It may even be turned into the channel of another stream, mingled with its water, and then reclaimed, so long as the amount

Thus, where downstream users have been the complaining party, the test as to the adequacy of the salvage operation goes to whether the downstream user has in fact been injured.

2) The Paige Exception

With one exception, California courts have sustained the rights of the salvagor to the salvaged water. In Paige v. Rocky Ford Canal and Irrigation Co., the court denied an upstream user the right to divert the flow of a stream that had been increased as a result of the upstream user's efforts to clear debris that had clogged the channel. The court held that the right of the downstream riparian owner to the natural flow of the water remained unchanged. 156/

A close reading of the Paige decision suggests that the court's holding may not be inconsistent with the previously noted decisions. The court, in explaining its decision, expressly restricted its application to the particular facts of the case:

> There is evidence upon which the court was warranted in finding that the appellant expended its money in removing this obstruction, opening up the channel and constructing its dam, not for the purpose of using the natural flow of the water, but as a channel through which it might conduct the waters turned into it by the appellant.

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of water appropriated by another is not diminished." In Pomona Land and Water Co. v. San Antonio Water Co., 152 Cal. 619, 623, 93 P. 811 (1908), the court concluded that "where one is entitled to the use of a given amount of water at a given point, he may not complain of any prior use made of the water which does not impair the quality or quantity to which he is entitled, and, upon the other hand, he may not lay claim to any excess of water over the amount to which he is entitled, however it may be produced."

156/ Paige v. Rocky Ford Canal and Irrigation Co., 83 Cal. 84, 94-96, 21 P. 1102 (1890).

> This being the case, the fact that the natural flow of water was increased by the removal of the obstruction, whereby the same would or might flow onto the respondent's lands, must be held to have accrued to his benefit, and not to that of the appellant, because it had no right to the natural flow of the water under such circumstances. 157/

Thus, the holding in Paige may be limited to situations where the salvagor did not indicate a prior intent to use the increased flow of the stream that he had created.

b. The Character of Salvage Water Rights

As with all water rights, a court will only protect those salvage water rights that are used for reasonable beneficial purposes. 158/ But beyond that limitation, the character of such rights remains unclear.

1) Applicability of the Statutory Appropriation Procedures

California appellate courts have not considered whether a salvaging party must follow the statutory appropriation scheme before he may use the water he has saved. 159/ The salvage decisions suggest that, upon salvage, the right to the saved water belongs to the salvagor. 160/ On the other

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157/ Paige v. Rocky Ford Canal and Irrigation Co., 83 Cal. 84, 95-96, 21 P. 1102 (1890) (emphasis in the original).

158/ CAL. CONST., art. 10, sec. 2; See also Bledsoe v. Decrow, 132 Cal. 312, 315, 64 P. 397 (1901).

159/ HUTCHINS, supra note 149 at 384.

160/ In Bledsoe v. Decrow, 132 Cal. 312, 315, 64 P. 397 (1901), the court noted that "in this case, if the defendants waste water in conducting it through their ditches, it may be that by pipes or otherwise they can hereafter save it, and thus have the full benefit of all they own" (emphasis added). In Pomona Land and Water Co. v. San Antonio Water Company, 152 Cal. 618, 623, 93 P. 881 (1908), the court held that water "which was saved by the economical method of impounding the water above, and the twenty-five inches, more or less, which were rescued as developed water from the bed of the stream, were essentially new waters, the right to use and distribute which belonged to the defendant" (emphasis added).

hand, the major decisions establishing salvage water rights occurred prior to the effective date of the statutory permit scheme. [161/] The resolution of the issue appears to turn on whether, in any particular instance, salvage water constitutes "unappropriated water."

The Water Code restricts the issuance of water rights permits to applications for unappropriated water. [162/] Section 1202 of the Code defines unappropriated water as water that has never been appropriated, water that was appropriated prior to 1914 but has not been diligently put to beneficial use, water that was appropriated under the post-1914 statutory acts but has not been diligently put to a beneficial use or has ceased to be beneficially used for the purposes originally appropriated, and water that is considered return flow. [163/]

161/ Ch. 586, (1913) Cal. Stats. 1012, effective date, Dec. 19, 1914.

162/ Cal. Water Code, Sections 1252 and 1375(d) (West 1971).

163/ "1202. The following are hereby declared to constitute unappropriated water:

(a) All water which has never been appropriated.

(b) All water appropriated prior to December 19, 1914, which has not been in process, from the date of the initial act of appropriation, of being put, with due diligence in proportion to the magnitude of the work necessary properly to utilize it for the purpose of the appropriation, or which has not been put, or which has ceased to be put to some useful or beneficial purpose.

(c) All water appropriated pursuant to the Water Commission Act or this code which has ceased to be put to the useful or beneficial purpose for which it was appropriated, or which has been or may be or may have been appropriated and is not or has not been in the process of being put, from the date of the initial act of appropriation, to the useful or beneficial purpose for which it was appropriated, with due diligence in proportion to the magnitude of the work necessary properly to utilize it for the purpose of the appropriation.

(d) Water which having been appropriated or used flows back into a stream, lake or other body of water." Cal. Water Code, Section 1202 (West 1971).

Since salvage water is defined as water that is unavailable to the water supply absent artificial efforts, by definition it could not be categorized as return flow under Section 1202. 164/ Generally, salvage water also could not be included in the pre-1914 waters that were lost through lack of due diligence because the diligence condition of that subdivision has been held to apply only to those appropriators who were completing a claim, not to those who had already perfected their claims. 165/ Thus, salvage water can only be considered "unappropriated water" (and thus subject to appropriation by permit) if it is considered water "which has never been appropriated" or water which was appropriated via the post-1914 statutory scheme and has "ceased to be put to the useful or beneficial purpose for which it was appropriated." 166/ The following will suggest that, in some cases, salvage water may not fall within these remaining categories of unappropriated water and therefore not be subject to appropriation by permit.

164/ 2 HUTCHINS, supra note 146.

165/ The court in Erickson v. Queen Valley Ranch Co., 22 Cal. App.3d 578, 583, 99 Cal. Rptr. 466 (1971) has held that "section 1202, subdivision (b), is a codification of a provision of the Water Commission Act of 1914, which required diligent completion of diversion works by would-be appropriators who had taken the initial steps toward establishing appropriative rights under the pre-1914 law. [Citation] It postulates 'diligence' as a condition to completion of the appropriative claim but not as a condition to retention of the right by one who ... had perfected his claim."

166/ Cal. Water Code, Section 1202(b) and 1202(c) (West 1971).

a) Salvage Water as "Water That Has Never Been Appropriated"

Water diverted pursuant to a lawful appropriation that is lost through a reasonable conveyance method is clearly appropriated water. To contend otherwise would require one to argue that water that has been properly diverted pursuant to a state-issued permit or license somehow remains "unappropriated."

In Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., the court, in reviewing the contention that a diverter was wasting water, held that:

> An appropriator, as against subsequent appropriators, is entitled to the continued flow to the head of his ditch of the amount of water that he, in the past, whenever that quantity was present, has diverted for beneficial purposes, plus a reasonable conveyance loss, subject to the limitation that the amount be not more than is necessary, under reasonable methods of diversion, to supply the area of land theretofore served by his ditch. 167/

Thus, an appropriator's entitlement has been held to include conveyance losses under reasonable methods of diversion. State regulations, promulgated to assist the permit application process, sustain this view. 168/ The salvage of that conveyance loss through, for example, the replacement of an open ditch with a closed pipe system, could not therefore be considered the salvage of "water that has never been appropriated."

While this view would exclude appropriated water that had been salvaged after its diversion from the water course from the permit process, it would not seem to affect water salvaged directly from the stream.

167/ Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 546-47, 45 P.2d 972 (1935) (emphasis added).

168/ "The amount of water for which to apply is governed by the amount which can be put to beneficial use including reasonable conveyance losses...." 23 Cal. Admin. Code, Section 655 (1974).

For example, water saved through the destruction of water-consumptive plants along the stream could not be considered "diverted" water and would therefore fall under the Section 1202 rubric of "water that has never been appropriated." Its subsequent salvage and diversion from the stream might therefore require compliance with the permit application process before it could be considered properly appropriated.

b) Water Appropriated Under the Post-1914 Statutory Scheme

Even salvage water that has been properly appropriated may become unappropriated water if it "has ceased to be put to the useful or beneficial purpose for which it was appropriated." 169/ At issue is whether the conveyance loss of properly appropriated water prior to its salvage turns that lost water to water that "has ceased to be put to the useful or beneficial purpose for which it was appropriated" and therefore transforms it into unappropriated water.

It is clear that conveyance loss, alone, is not an unreasonable or nonbeneficial use. In Thayer v. California Development Co., the court explained that:

> There is generally some unavoidable waste in any large irrigation system ... so much of the water as may be unavoidably wasted is to be deemed a part of that which is appropriated to the beneficial use and which the company has the right to take. 170/

169/ Cal. Water Code, Section 1202(c) (West 1971).

170/ Thayer v. California Development Co., 164 Cal. 85, 137, 120 P.21 (1912), See also Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist., 3 Cal.2d 489, 546-47, 45 P.2d 972 (1935).

The court concluded that:

> So far as any other waste of the water is concerned, it is water to which the defendants have acquired no right. Their right is measured by the quantity which is put to beneficial use, by which is meant the quantity necessary to be taken from the source to supply that use at the place of use. 171/

If the salvagor immediately uses his salvaged water for beneficial purposes and applies for a change of point of diversion, place of use or purpose of use where applicable, it would not appear that the salvaged water could be classified as "unappropriated" water pursuant to Section 1202(c). 172/ There would appear to be no cessation of beneficial use. If beneficial use is uninterrupted then the salvaged water remains "appropriated" by the salvagor and the permit and license procedures would not be applicable.

2) Problems With Priority

In addition, California appellate courts have not yet determined the priority to be given salvage water rights in relationship to other appropriators on the stream. If the particular salvagor is required to comply with the permit and license process, then it would appear that his priority on the stream would be established by the date of his permit application. 173/ If the salvagor is not required to comply with the permit and license process, then it is unclear whether the salvage right is superior to or subject to the prior appropriations along the stream.

171/ Id.

172/ Cal. Water Code, Sections 1700-1706 (West 1971).

173/ Cal. Water Code, Section 1455 (West 1971).

Assume, for example, a stream with an annual supply of 10 acre-feet (af) that has been reduced to 5 af because of drought conditions. [174] Assume that A, an appropriator, holds a right to 5 af and B, an upstream salvagor, has not obtained a permit or license for the water he has salvaged. Assume further that B, through the destruction of water consumptive plants along the stream, salvages 5 af and reasonably uses the water for beneficial purposes. If B's salvage right is subject to A's appropriation, then B would not be entitled to any of the 5 af available under drought conditions. If B's salvage right is superior to A's appropriative right, then A would not receive any water in time of shortage. But, for B to claim a superior right to A's appropriative claim, B must contend that the rights in salvage water are independent of the appropriative system and therefore supersede the entire schedule of appropriative rights on a stream.

In the recent decision of Southeastern Colo. W. C. Dist. v. Shelton Farms, Inc., the Supreme Court of Colorado squarely faced the issue of priority rights to instream salvage water. [175] In Shelton, the surface flow of the river had been greatly over-appropriated. [176] The upstream user alleged salvage of 442 acre-feet of water per year through the removal of phreatophytes and the filling of marshes. [177] The upstream user

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174/ One acre-foot is the quantity of water required to cover one acre to a depth of one foot; equal to 43,560 cubic feet, or 325,851 gallons.

175/ Southeastern Colo. Water Conservancy Dist. v. Shelton Farms, Inc., 529 P.2d 1321 (Colo. 1975).

176/ Id. at 1323.

177/ Id.

requested a water decree for the salvaged water to supplement his groundwater supply. [178] A downstream water conservancy district challenged the requested decree as impairing its rights as a prior appropriator. [179]

The court held that the requested salvage water decree was subject to all prior water decrees, thus granting prior appropriators a superior right to the salvaged water. [180] The court first noted that Colorado case law distinguished between "developed" water and "salvage" water. Developed water was considered free from prior decrees whereas salvaged water was subject to the decrees. [181] The water saved by the removal of the phreatophytes and the filling of the marshes was held to be "salvage water" in that the water was not "new" water introduced into the water supply, but "old" water that was rescued from a nonbeneficial use. [182] The court then stressed that the Colorado water rights legislation expressly protected prior vested rights and that a contrary decision would have created a new "super" class of water rights, outside of the appropriative system. [183]

178/ Id. In Colorado special water judges or their designated referees determine the allocation of appropriative water rights. A person seeking a determination of his water rights must file an application for a water decree with a water clerk. A designated referee then rules on the application subject to review by the special water judge. 2 HUTCHINS, supra note 94 at 452-54.

179/ Southeastern Colo. Water Conservancy Dist. v. Shelton Farms Inc., 529 P.2d 1321, 1324 (Colo. 1975).

180/ Id. at 1326.

181/ Id.

182/ Id.

183/ Id.

The court's overriding concern appeared to be that the requested water rights decree would disrupt the long-standing priority system. [184/]

The California appellate courts have not yet directly considered the priority issue raised in Shelton. California courts, however, might well distinguish the Colorado decision. First, unlike Colorado, the rights to salvage and developed water in California follow the same rule; the salvagor or developer is entitled to the saved water where prior rights are not infringed. [185/] Where the matter has been considered, the court has restricted the issue of prior rights to a determination of whether the salvage effort has reduced the water reaching downstream users. [186/] Furthermore, California has developed a water rights system which contains many types of water rights (riparian, appropriative and pueblo). Thus, a class of water rights that was outside of the appropriative system would not be foreign to the California tradition. Finally, given the California constitutional concern over waste and unreasonable use, it would seem likely that a California court would seek to award the salvagor the benefits of his efforts. [187/]

184/ Southeastern Colo. Water Conservancy Dist. v. Shelton Farms, Inc., 529 P.2d at 1325, 1326, and 1327. But it should be noted that the Colorado position is not universally held outside of California. In Hill v. Green, 47 Idaho 157, 274 P. 110 (1928), the Idaho Supreme Court held a salvaging party, "as a matter of law, can gain a superior right over prior appropriators ... by salvaging the waters." See also Bosinger v. Taylor, 36 Idaho 591, 211 P. 1085, 1086 (1922).

185/ HUTCHINS, supra note 94.

186/ See note 155 and accompanying text.

187/ CAL. CONST., art. 10, sec. 2.

2. Return Water

Return water is water diverted for irrigation or other uses that return to the stream from which diverted, or to some other stream. 188/ Return water is distinguishable from salvage water in that salvage water would be lost to any beneficial use in the absence of a salvage effort. 189/ Return water has been held to include water that returns to the stream from irrigated land, 190/ imported water used on overlying land that returns to the groundwater basin 191/ and, in at least one jurisdiction, sewage water discharged by a municipality. 192/

188/ 2 HUTCHINS, supra note 94 at 568.

189/ Id. at 565.

190/ Scott v. Fruit Growers Supply Co., 202 Cal. 47, 51-52, 258 P. 1095 (1927); Southern California Investment Co. v. Wilshire, 144 Cal. 68, 72-73, 77 P. 767 (1904).

191/ City of Los Angeles v. City of San Fernando, 14 Cal.3d 199, 256-58, 537 P.2d 1250, 123 Cal. Rptr. 1 (1975).

192/ Wyoming Hereford Ranch v. Hammond Packing Co., 33 Wyo. 14, 236 Pac. 764, 772 (1925). In Wyoming Hereford Ranch, the court held that a prior appropriator had no right to challenge a city's diversion of sewage waters from its sewer line. The city could properly contract to sell such waters where they had not, as of yet, been discharged into the stream. The court reasoned that:

> In determining how it will make a proper disposition of that which may be termed a potential nuisance, we think the city should not be hampered by a rule that would always require the sewage to be treated as waste or surplus waters. Sewage is something which the city has on its hands, and which must be disposed of in such a way that it will not cause damage to others. Wyoming Hereford Ranch, 33 Wyo. 14, 236 P. 764, 772 (1925) (emphasis added).

Where sewage water has been treated so as not to "cause damage to others", arguably, the holding of the Wyoming court might not be applicable.

Water conservation efforts may reduce the amount of return flow discharged into the stream. An irrigator might seek to reuse his return flow to the detriment of a downstream user who has relied on the flow as a source of supply. Similarly, a municipality that is engaged in waste water reclamation might find it more beneficial to reuse or sell its treated effluent rather than to continue to discharge it into the stream. Thus, at issue is the question of who may properly claim the right to return flow.

a. The Right to Use Return Water

The Water Code provides that unappropriated water includes water that has been appropriated or used and has flowed back into a stream, lake or other body of water. 193/ As with all unappropriated water, the State Water Resources Control Board may issue a permit or license for the use of such water. 194/ In the typical situation, a prior appropriator diverts water for irrigation purposes. The water then returns to the stream and is utilized by downstream appropriators. The prior appropriator then changes his method or place of use resulting in a discontinuation of the return flow. The resulting injury to the downstream user forces the determination of the rights to the water.

In Scott v. Fruit Growers Supply Co., the leading California return water decision, the court affirmed the trial court's judgment which enjoined an upstream appropriator from changing his point of diversion and

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193/ Cal. Water Code, Section 1202(d) (West 1971).

194/ Cal. Water Code, Sections 1250 et seq. and 1600 et seq. (West 1971).

place of use where such changes reduced the amount of return flow available to downstream appropriators. 195/ The court explained that:

> [I]t is not the effect of this judgment to deprive defendant and appellant of the use of the waters of the springs for irrigation of the Long Ranch, but merely to enjoin it from diverting the waters from the watershed, and it is settled that even an appropriator of water may not change the point of diversion to the injury of others. 196/

The court then concluded that the waters flowing off the defendant's ranch were subject to appropriation by downstream users.

Downstream riparians have also obtained protection against diversions that might reduce existing return waters. In Southern California Investment Co. v. Wilshire, the defendant's irrigation waters returned to the stream and benefitted the plaintiff, a downstream riparian. In order to protect the plaintiff's riparian rights, the court sustained the trial court's injunction of the defendant's diversion of water to a point outside of the watershed. 197/ The court reasoned that:

> [T]he plaintiff has riparian rights in the stream through its lands, including that which the defendants allowed to escape, and which seeped into the stream after being used for irrigation, as well as that which flows in the stream in excess of the increase thus received. As such riparian owner, it has the right to have the stream continue to flow through its lands in the accustomed manner, and to use the

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195/ Scott v. Fruit Growers Supply Co., 202 Cal. 47, 55, 258 P. 1095 (1927).

196/ Id. (emphasis added).

197/ Southern California Investment Co. v. Wilshire, 144 Cal. 68, 73-74, 77 P. 767 (1904) (emphasis added).

same to irrigate an additional area thereof, undiminished by any additional or more injurious use or diversion of the water upon the stream above. 198/

Thus, both downstream appropriators and riparians may properly claim rights to return water. As the following will explain, established exceptions have substantially weakened the authority of this general rule.

b. The Foreign Water Exception

The restrictions on the rights of downstream users to return flow first appeared over disputes involving foreign return water. 199/ Initially, the court treated foreign return flow as "abandoned water" and therefore subject to continued use by downstream users. 200/ This rule was subsequently modified to deny downstream riparians the right to the continued flow. 201/ The court reasoned that riparian land was only entitled to the natural flow of the stream and that foreign return water was supplemental to the natural flow. 202/

198/ Id. at 73. In a similar case where the court enjoined the defendant from diverting water to a point outside of the watershed, the court explained that "the principal reasons for the rule confining riparian rights to that part of lands bordering on the stream which are within the watershed are, that where the water is used on such land it will, after such use, return to the stream, so far as it is not consumed, and that, as the rainfall on such land feeds the stream, the land is, in consequence, entitled so to speak, to the use of its water." Anaheim Union Water Co. v. Fuller, 150 Cal. 327, 331, 88 P. 978 (1907) (emphasis added).

199/ "Foreign water" is defined as water coming from sources outside of the watershed. E. Clemens Horst Co. v. New Blue Point Mining Co., 177 Cal. 631, 634, 171 P. 417 (1918). The term is used synonymously with the term "imported water."

200/ Eddy v. Simpson, 3 Cal. 249, 251 (1853).

201/ E. Clemmens Horst Co. v. New Blue Point Mining Co., 177 Cal. 631, 638, 171 P. 417 (1918).

202/ Id. at 637-38.

The California Supreme Court deferred determination of the rights as between importers of return flow and downstream appropriators until its decision in Stevens v. Oakdale Irrigation District. [203] In Stevens, the court held that the importer of foreign water that eventually returned to the stream was not required to continue the discharge where the water still remained within the importer's boundaries. [204] The court overturned the holding in Eddy v. Simpson by restricting "abandoned water" to the particles of water that had passed the boundaries of the importer's land. [205] The court rejected the view of the downstream users that they were entitled to the return flow because they had relied on this flow and would be injured by its discontinuation. [206] Thus, neither downstream appropriators nor downstream riparians may claim a superior right to the return flow over an importer of foreign water where the water is recaptured within the importer's irrigation works or on its own land. [207]

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[203] Stevens v. Oakdale Irrigation District, 13 Cal.2d 343, 352, 90 P.2d 58 (1939).

[204] Id. at 352.

[205] Id. at 350.

[206] Id. at 351. In defending its position, the court reflected an early appreciation of the need to encourage water conservation. It noted that, "as a district is brought to the peak of development, an increasing use of water may be anticipated, and also a more efficient method of use, with resultant decrease in the amount of abandoned water, spill and seepage. In this process of growth, the discharge of a considerable volume of artificial flow over a long period of formative years should not and does not invariably constitute an abandonment by the district of its right to such waters, or impose upon it a duty to always maintain the same volume of discharge." (emphasis added).

[207] City of Los Angeles v. City of San Fernando, 14 Cal.3d 199, 258, 537 P.2d 1250, 123 Cal. Rptr. 1 (1975).

c. The "Prior Intent" Exception

Where the original diverter of the return waters has introduced the water into the water supply intending to recapture the supplemental flow, the California courts have created a second exception to the general rule regarding the rights to return flow. If one transfers water through a watercourse with the intention of recapture, then the transferor will not lose his return flow rights to one who holds prior rights to the natural flow of the stream. The court has applied this "prior intent" exception where an upstream user has deliberately discharged water into a stream for downstream use, 208/ and where a municipality has delivered water from outside of the watershed for the purpose of recharging the underground basin. 209/ The Legislature has codified this rule for surface water in Section 7075 of the Water Code. 210/ The rationale for these decisions appears to be a desire to reward foresight and planning in water resource management 211/ and to encourage the most economical methods of transfer and storage. 212/

208/ Hoffman v. Stone, 7 Cal. 46, 49 (1857); Butte Canal and Ditch Co. v. Vaughn, 11 Cal. 143, 152 (1858); Wutchumna Water Co. v. Pogue, 151 Cal. 105, 111, 90 P. 362 (1907).

209/ Los Angeles v. Glendale, 23 Cal.2d 68, 76-77, 142 P.2d 289 (1943); Los Angeles v. San Fernando, 14 Cal.3d 199, 256-258, 537 P.2d 1250, 123 Cal. Rptr. 1 (1975).

210/ "Water which has been appropriated may be turned into the channel of another stream, mingled with its water, and then reclaimed; but in reclaiming it the water already appropriated by another shall not be diminished." Cal. Water Code, Section 7075 (West 1971).

211/ "In making water available, plaintiff selected an area where it could recover as much water as possible from seepage, and it should not be deprived of the benefit of its foresight," Los Angeles v. Glendale, 23 Cal.2d 68, 78, 142 P.2d 289 (1943).

212/ "It would be a harsh rule, however, to require those engaged in these enterprises to construct an actual ditch along the whole route

d. Possible Conflict With Seepage and Waste Water Decisions

The above mentioned exceptions have severely restricted the applicability of the general rule. Downstream users may only successfully obtain priority to the flow where the return waters come from watershed sources and the original diverter did not intend to use the watercourse as a transfer mechanism to ease recapture. But even assuming watershed sources and inadvertent return flows, the classification of the disputed waters as seepage or waste water, rather than return flow, may independently deny downstream users the right to the water.

As previously noted, judicial classification of water categories has never been precise. Courts will commonly use interchangeably the terms "return flow", "waste waters", and "seepage." In spite of this ambiguity, a determination of rights to return flow will produce separate and contrary results depending upon the particular classification of the disputed waters. It is settled that the owner of the land on which waste and seepage waters originate is not required to continue the conditions which produced such waste and seepage waters. 213/ It is also settled that, excluding the exceptions noted, the upstream diverter may not reduce the return flow by changing his place of use or point of diversion when such changes would impair the riparian landowner's natural flow or injure a downstream appropriator. 214/ The rights of the parties are therefore dependent upon the particular classification of the disputed water.

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through which the waters were carried and to refuse them the economy that nature occasionally afforded in the shape of a dry ravine, gulch or canon." Hoffman v. Stone, 7 Cal. 46, 49 (1857); See also Los Angeles v. Glendale, 23 Cal.2d 68, 77, 142 P.2d 289 (1943).

213/ Joerger v. Pacific Gas and Electric Co., 207 Cal. 8, 34, 276 P.1017 (1929).

214/ Scott v. Fruit Growers Supply Co., 202 Cal. 47, 51-52, 258 P. 1095 (1927); Southern California Investment Co. v. Wilshire, 144 Cal. 68, 72-73, 77 P. 767, 1904.

California courts have included in waste and seepage water permissively used ditch water, surplus to the ditch owner's needs; [215/] ditch water flowing sporadically into another ditch; [216/] canal water released through a wastegate; [217/] mining water discharged from a flume system; [218/] and drainage water. [219/]

These waste and seepage cases are distinguishable from the return flow cases in that the waste and seepage water does not reach the watercourse and cannot therefore be diverted from the stream by downstream users. [220/] This distinction has provided the court with a basis for the separate rules regarding return flow and waste water. In providing a rationale for its waste water rule, the court has looked to the predictability of the two water categories. Water outside of the water course is considered less

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215/ Davis v. Martin, 157 Cal. 657, 662, 108 P. 866 (1910); Green v. Carotta, 72 Cal. 267, 269-70, 13 P. 685 (1887).

216/ Stepp v. Williams, 52 Cal. App. 237, 251, 198 P. 661 (1921).

217/ Ball v. Kehl, 95 Cal. 606, 611-13, 30 P. 780 (1892).

218/ Dougherty v. Creary, 30 Cal. 290, 298-99 (1866); Correa v. Frietas, 42 Cal. 339, 344-45 (1871).

219/ Joerger v. Pacific Gas and Electric Co., 207 Cal. 8, 33, 276 P. 1017 (1929).

220/ But see Dannebrink v. Burger, where water leaking downstream from a dam and a ditch was characterized as "seepage water." Dannebrink v. Burger, 23 Cal. App. 587, 593, 138 P. 751 (1913). The Dannebrink decision thus indicates that the line between waste and seepage water and return water is unclear.

certain than water within the watercourse. [221/] A subsequent user may therefore be justified in relying upon return flows discharged into the stream but not upon waste water that has yet to reach a watercourse.

e. Potential Problems Regarding the Sale of Treated Effluent

Because of advancing waste water reclamation technology and increasing water quality standards,[222/] the marketing of treated effluent has become a genuine possibility. Reclaimed waste water is already being used for irrigation, industrial reuse and recreation purposes. The sale and distribution of reclaimed waste water may raise additional water rights problems.

First, there has been no reported California appellate consideration of a municipality's right to sell treated effluent it would have otherwise discharged into the watercourse. As previously noted, downstream users may, under certain circumstances, claim a right to a continued supply of return flow. Such claims may conflict with the desire of a municipality to sell its reclaimed waste water.

221/ In Stepp v. Williams, 52 Cal. App. 237, 251, 198 P. 661 (1921) the court reasoned that "these waste waters were of a vagrant or fugitive character, and while so long as they remained so or were not controlled by the owner of the ditch from which they escaped, they were subject to appropriation and use by others, a usufruct could not be acquired therein." See also Green v. Carotta, 72 Cal. 267, 269, 13 P. 685 (1887).

222/ The Federal Water Pollution Control Act provides that by 1983, effluent limitations regarding point source discharge shall require the application of the "best available technology economically achievable for such category or class" of discharge to eliminate the discharge of pollutants. 33 U.S.C., Section 1311(b) (2) (Supp. 1977).

Furthermore, it is unclear how water rights are to be allocated as between the original diverter and the separate owner and operator of a sewage disposal system which controls the waste water. It has been argued that the sewage system owner obtains the right to use and resell the water under an implied grant or abandonment theory. [223/] There has also been no judicial resolution of this question.

Finally, if the source of the reclaimed waste water is a post-1914 appropriative right then the sale of the water right to a buyer outside of the originally specified place of use might require an application for change of place of use from the State Water Resources Control Board under Water Code Sections 1700-1705. Section 1706 allows pre-1914 appropriators to change their place of use without application to the Board if "others are not injured by such change." The growing pressure to conserve water may force an early consideration of all of these issues.

B. The Forfeiture of Appropriative Rights

Unlike a riparian landowner, [224/] a holder of pueblo rights, [225/] or an overlying landowner, [226/] an appropriator may lose his water rights

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223/ Moskovitz, "Quality Control and Re-use of Water in California", 45 Cal. L.R. 586, 596 (1957).

224/ Mt. Shasta Power Corp. v. McArthur, 109 Cal. App. 171, 192, 292 P. 549 (1930).

225/ City of Los Angeles v. City of Glendale, 23 Cal.2d 68, 76, 142 P.2d 289 (1943).

226/ City of Pasadena v. City of Alhambra, 33 Cal.2d 908, 933-34, 207 P.2d 17 (1949).

through nonuse. A pre-1914 appropriator will lose the right after five years of nonuse. [227/] A post-1914 appropriator loses the right after three years. [228/] An appropriator who reduces consumption due to water conservation efforts and fails to use the full entitlement for the three or five year period may forfeit the remainder into the pool of unappropriated water.[229/] The threat of forfeiture therefore creates a disincentive to conserve water.

227/ The original Civil Code provision did not state any express period of time before nonuse caused previously appropriated water to revert to unappropriated water. The Supreme Court drew an analogy to the five year period required for adverse possession to ripen into a prescriptive title and judicially imposed a five year period. Smith v. Hawkins, 110 Cal. 122, 126-27, 42 P. 453 (1895).

228/ Section 1241 states that:

> When the person entitled to the use of water fails to beneficially use all or any part of the water claimed by him, for which a right of use has vested, for the purpose for which it was appropriated or adjudicated, for a period of three years, such unused water reverts to the public and shall be regarded as unappropriated public water. Cal. Water Code, Section 1241 (West 1971).

229/ Water Code Section 1241.5 provides for the postponement of the forfeiture requirement for Indian trust lands. The section states that:

> The laws of this State with respect to loss of water rights by nonuse, abandonment, prescription, and lack of diligence shall not apply to water rights appurtenant to or for use on any trust land for the period of five years following the conveyance by the United States of an unrestricted title to the land and the water rights appurtenant to or for use on such land. Cal. Water Code, Section 1241.5 (West 1971).

Water Code Section 1241.6 extends the forfeiture period under certain hardship conditions. The section provides that:

> When water appropriated for irrigation purposes is not used by reason of compliance with crop control or soil conservation contracts with the United States, and in other cases of hardship as the board may by rule prescribe, the three-year forfeithre period applicable to water appropriated pursuant to the Water Commission Act or this code, and the forfeiture period applicable to water appropriated prior to December 19, 1914, shall be extended by an additional period of not more than 10 years or the duration of any crop control or soil conservation contracts with the United States if less than 10 years. Cal. Water Code, Section 1241.6 (West 1971).

It is currently unclear whether the forfeiture of post-1914 appropriative rights occurs automatically upon the lapse of the three year period of nonuse or whether the State Water Resources Control Board must affirmatively revoke the permit or license. 230/ In Eaton v. State Water Rights Board, the Court of Appeal indicated that permit rights were not "a fully perfected right."231/ Water Code Section 1241 imposes forfeiture only upon water claims where "a right of use has vested." 232/ Thus, permit rights may be completely excluded from the forfeiture rule. Furthermore, Water Code Sections 1410-1415 and 1675-1677 provide a detailed process for the revocation of permits and licenses where the permittee or licensee has failed beneficially to use the water. 233/ These notice and hearing procedures would have been unnecessary if Section 1241 was intended to automatically impose a forfeiture after the lapse of the three year nonuse period.

Judicial review of this matter has been conflicting and inconclusive. In Eaton v. State Water Rights Board the Court of Appeal flatly stated that:

230/ Forfeiture of the pre-1914 appropriative rights appears to occur automatically upon the lapse of the five year period. Wright v. Best, 19 Cal.2d 368, 380-81, 121 P.2d 702 (1942); Lindblom v. Round Valley Water Co. 178 Cal. 450, 454-55, 173 P. 994 (1918); Smith v. Hawkins, 110 Cal. 122, 126-28, 42 P. 453 (1895).

231/ Eaton v. State Water Rights Board, 171 Cal. App.2d 409, 415, 340 P.2d 722 (1959).

232/ Cal. Water Code, Section 1241 (West 1971).

233/ Cal. Water Code, Sections 1410-15, 1675-77 (West Supp. 1977).

> A permit does not expire merely from the passage of time. It remains in force until revoked in the manner prescribed by section 1410. 234/

But, in Erickson v. Queen Valley Ranch, the court observed that:

> Generally, an appropriative water right is forfeited by force of statute and reverts to the public if the appropriator fails to put it to beneficial use during a three year period. 235/

The State Water Resources Control Board has recognized the forfeiture rule's disincentive to water conservation and has recommended legislative changes with regard to water saved through waste water reclamation. The Board has recommended that, whenever cessation or reduction in the use of water under an existing right occurs because of substitution of reclaimed water, the water right shall not be lost or reduced. 236/ This measure is currently pending before the California Legislature. 237/

234/ Eaton v. State Water Rights Board, 171 Cal. App2d 409, 415, 340 P.2d 722 (1959).

235/ Erickson v. Queen Valley Ranch, 22 Cal. App.3d 578, 582, 99 Cal. Rptr. 446 (1971). See also East Side Canal & Irrigation Co. v. United States, 76 F. Supp. 836, 838-39 (Ct. Cl. 1948) cert. denied 339 U.S. 978, 70 S. Ct. 1020, 94 L.Ed. 1382 (1950).

236/ CAL. WATER RESOURCES CONTROL BOARD, POLICY AND ACTION PLAN FOR WATER RECLAMATION IN CALIFORNIA 23 (1977).

237/ Cal. Leg. Senate Bill 595 (Mar. 17, 1977).

III. Existing Institutional Methods For Encouraging Water Conservation

Aside from the statutory procedure for the enforcement of the reasonable beneficial use requirement, the Legislature has provided several additional methods for encouraging water conservation. The following will consider the authority of local water agencies to restrict water usage, the power of the California Public Utilities Commission to impose water conservation restrictions on certain water suppliers, and the authority of the Governor to order mandatory water rationing under the Emergency Services Act.

A. The Authority of Local Water Agencies to Restrict Water Usage

Pursuant to Water Code Section 350, a public water supply distributor may declare a water shortage emergency. The distributor may declare such an emergency whenever it finds and determines that:

> [T]he ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection. 238/

Upon declaration that a water shortage emergency exists, the distributor has the authority to:

> adopt such regulations and restrictions on the delivery of water and the consumption within said area of water supplied for public use as will in the sound discretion of such governing body conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection. 239/

Such regulations and restrictions would be effective until the water supply has been replenished or augmented. 240/

238/ Cal. Water Code, Section 350 (West 1971).

239/ Cal. Water Code, Section 353 (West 1971).

240/ Cal. Water Code, Section 355 (West 1971).

In a 1976 decision, the Court of Appeal held that a municipal water district which relied on a groundwater supply could properly declare the existence of an emergency water shortage pursuant to Water Code Section 350 upon a finding that the district's water consumption was exceeding annual safe yield by 6500 acre feet. 241/ The court held that the district could prohibit new water service even though a water shortage was not immediately present. 242/ Thus, the district could utilize the authority provided under Water Code Sections 350-58 to meet and plan for future needs. 243/

In addition to these powers, public water agencies may claim further authority to restrict water usage under provisions within their general district acts. Water Code Section 31026 grants county water districts,

> the power to restrict the use of district water during any emergency caused by drought, or other threatened or existing water shortage, and to prohibit the wastage of district water or the use of district water during such periods, for any purpose other than household uses or such other restricted uses as may be determined to be necessary by the district and may prohibit use of such water during such periods for specific uses which the district may from time to time find to be nonessential. 244/

Water Code Section 71640 grants municipal water districts similar authority to restrict water usage. 245/

241/ Swanson v. Marin Mun. Water Dist., 56 Cal. App.3d 512, 520, 128 Cal. Rptr. 485 (1976).

242/ Id.

243/ Id.

244/ Cal. Water Code, Section 31026 (West 1971).

245/ Cal. Water Code, Section 71640 (West 1971). In addition, a municipal water district may "undertake a water conservation program to reduce water use and may require, as a condition of new service, that reasonable water-saving devices and water reclamation devices be installed to reduce water use." Cal. Water Code, Section 71610.5 (West Supp. 1977).

In the event of a water shortage, California water districts may proportionally reduce water delivery to landowners who plan to plant annual crops or new plantings. Landowners who have planted permanent crops may be forced to take a "reasonable proportionate percentage reduction" in their normal water usage. 246/ Similarly, a water storage district may reduce delivery so long as the deficiency is "borne ratably by all the land." 247/

As of April 21, 1977, twenty communities had adopted mandatory conservation programs. 248/ These programs have reduced water usage by declaring a water shortage emergency, by imposing use restrictions and/or by allocating water through water allotments.

Under a use restriction program, certain water uses are classified as nonessential and are prohibited. Lawn irrigation, gutter flooding, car washing, and the filling of swimming pools and decorative fountains are the common targets of a use restriction program. 249/

A water allotment program restricts usage to an established amount per user but, within the allotment, the water user may use his water in any manner he wishes. The Marin Municipal Water District has adopted such an allotment program and has obtained a 57 percent reduction in water usage. 250/ Other communities have adopted combination use

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246/ Cal. Water Code, Section 35454 (West 1971).

247/ Cal. Water Code, Section 43004 (West 1971).

248/ CAL. GOVERNOR'S OFFICE OF EMERGENCY, HANDBOOK FOR COMMUNITY WATER MANAGEMENT 10 (1977).

249/ See BOARD OF DIRECTORS OF THE NEVADA IRRIGATION DISTRICT, RESOLUTION NO. 77-15 (February 9, 1977).

250/ CAL. GOVERNOR'S OFFICE OF EMERGENCY, supra note 248 at 23.

restriction and water allotment programs. 251/

B. The Power of the California Public Utilities Commission to Impose Water Conservation Measures

Sections 761 and 770 of the Public Utilities Code provide the California Public Utilities Commission with broad authority to regulate the policies and practices of public utilities. 252/ Section 761 states that:

> Whenever the commission, after a hearing finds that the rules, practices, equipment, appliances, facilities or services of any public utility, or the methods of manufacture, distribution, transmission, storage, or supply employed by it are unjust, unreasonable, unsafe, improper, inadequate, or insufficient, the commission shall determine and, by order or rule, fix the rules, practices, equipment, appliances, facilities, services or methods to be observed, furnished, constructed, enforced, or employed. 253/

Section 770 further provides that the Commission, after a hearing, may:

> (a) Ascertain and fix just and reasonable standards, classifications, regulations, practices, measurements, or service to be furnished, imposed, observed, and followed by all electrical, gas, water, and heat corporations. 254/

These provisions grant the Commission substantial authority to promote water conservation. The California Supreme Court, for example, has determined that these sections grant the Commission the power to require

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251/ Id.

252/ The Public Utilities Code defines "public utility" to include a water corporation. Cal. Pub. Util. Code, Section 216 (West 1975). A "water corporation" includes every corporation or person owning, controlling, operating or managing any water system for compensation within this State. Cal. Pub. Util. Code, Section 241 (West 1975). Mutual water companies, municipal water systems, and water districts are not subject to the Commission's jurisdiction.

253/ Cal. Pub. Util. Code, Section 761 (West 1975) (emphasis added).

254/ Cal. Pub. Util. Code, Section 770 (West 1975).

a public utility to install water meters, at the public utility's expense. [255/]

The Commission, on its own investigation, has adopted an emergency interim order regarding water conservation. [256/] The order requires all water utilities subject to the Commission's jurisdiction to provide a forecast of their probable water supply for 1977 and submit a water rationing plan. All utilities having annual gross revenues equal to or in excess of $50,000 are required to distribute water conservation kits, to prepare draft rationing ordinances, develop a consumer education program, conduct a leak detection and mitigation program, and attempt to reduce operating pressure. [257/] In addition, any water distributor which is subject to the Commission's jurisdiction must submit to the Commission for approval any water delivery restrictions adopted by the distributor pursuant to the water shortage provisions of Water Code Sections 350-58. [258/]

The Commission's capacity to affect water conservation is considerable as to those water companies within its jurisdiction. Four hundred water utilities are currently subject to the Commission's jurisdiction. As of December 31, 1974, these utilities served 1,170,787 customers. [259/]

255/ Dyke Water Co. v. Public Utilities Comm., 56 Cal.2d 105, 116, 363 P.2d 326, 14 Cal. Rptr. 310, (1961), cert. den. 368 U.S. 939, 82 S. Ct. 380, 7 L. Ed.2d 338 (1961). The court noted that "such a power is necessary and desirable in order to prevent a waste of the product being distributed." Dyke Water Co. v. Pub. Utilities Comm., 56 Cal.2d at 116. (emphasis added).

256/ Cal. Pub. Util. Comm., Decision No. 86959 (February 10, 1977).

257/ Cal. Pub. Util. Comm., Decision No. 86954 (February 10, 1977).

258/ Cal. Water Code, Section 357 (West 1971).

259/ Cal. Pub. Util. Comm., Decision No. 86959 at 6 (February 10, 1977).

C. The Governor's Authority to Order Mandatory Water Rationing Under the Emergency Services Act

The Emergency Services Act provides the Governor with special powers to meet certain levels of emergency within the State. 260/ The Act defines a "State of Emergency" as the existence of:

> conditions of disaster or of extreme peril to the safety of persons and property within the state caused by such conditions as air pollution, fire, flood, storm, epidemic, riot or earthquake or other conditions . . ., which conditions by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single county, city and county, or city and require the combined forces of a mutual aid region or regions to combat. 261/

Where these circumstances exist and where a city mayor or chief executive requests assistance or where a county chairman of the board of supervisors or the county administrative officer requests assistance or where local authority cannot cope with the emergency, the Governor may proclaim a state of emergency as to a designated area. 262/

Within the designated area, the Governor may exercise "all police power vested in the state by the constitution and laws of the State of California" in order to mitigate the emergency. 263/ The Governor may issue orders and regulations, having the force of law, to carry out the purposes of the Act. 264/ The Governor may further suspend the provisions

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260/ Authority granted by the Act to the Governor under a "State of War Emergency" (Cal. Gov't. Code, Sections 8558(a) and 8620 et seq. (West Supp. 1977)) and to local officials under a "local emergency" (Cal. Gov't. Code, Sections 8558(a) and 8630 et seq. (West Supp. 1977)) is not herein considered.

261/ Cal. Gov't. Code, Section 8558(b) (West Supp. 1977) (emphasis added).

262/ Cal. Gov't. Code, Section 8625 (West Supp. 1977).

263/ Cal. Gov't. Code, Section 8627 (West Supp. 1977).

264/ Cal. Gov't. Code, Sections 8567 and 8627 (West Supp. 1977).

of any regulatory statute and the orders, rules or regulations of any state agency where necessary to mitigate the emergency. 265/ Failure to comply with any emergency order or regulation may result in a maximum 500 dollar fine or a maximum six months imprisonment or both. 266/

The State Attorney General has recently concluded that "a condition of extreme drought is a condition sufficiently similar to such perils or disasters as 'air pollution, fire, flood, storm, epidemic, riot or earthquake' to fall within the realm of 'other conditions'" under Government Code Section 8558(b). 267/ Thus, extreme drought conditions may trigger a "state of emergency" under the Act. The State Attorney General further concluded that "the power to mandate water rationing in cases of extreme drought is clearly within the 'police power vested in the state by the Constitution and laws of the State of California' if the purpose of such rationing is to protect the order, safety, health, and general welfare of the society under these extreme circumstances." 268/ Thus, in the case of a state of emergency due to drought, the rationing of water would be a proper exercise of the police power. 269/ The State Attorney General therefore concluded that the Governor has the power to order the mandatory rationing of water during a proclaimed "state of emergency." 270/

265/ Cal. Gov't. Code, Section 8571 (West Supp. 1977).

266/ Cal. Gov't. Code, Section 8665 (West Supp. 1977).

267/ 60 Ops. Cal. Atty. Gen. 99, 101 (1977).

268/ Id. at 103.

269/ Id.

270/ Id. at 100.

IV. Alternative Means of Encouraging Water Conservation

A. Water Pricing Policy

Economic theory asserts that maximum economic efficiency occurs where the price of a good or service equals the cost of the last unit supplied, its marginal cost. Where price is below marginal cost, a consumer will over-invest in the product to the detriment of alternative, more productive investments. Where price is above marginal cost, under-investment will occur. Thus, a marginal cost pricing policy will discourage wasteful uses of any good or service by encouraging only the consumption necessary for maximum economic productivity given consideration of all alternative investments.

Proponents of marginal cost pricing have contended that existing water pricing policies are not consistent with marginal cost theory and therefore encourage the misallocation of the resource. 271/ These commentators have argued that existing pricing policy commonly markets water at prices substantially below marginal cost and that modification of water pricing policy to better reflect marginal cost would reduce consumption. 272/

271/ NATIONAL WATER COMMISSION, WATER POLICIES FOR THE FUTURE 251 (1973).

272/ J. HIRSHLEIFER, J. DEHAVEN, & J. MILLIMAN, WATER SUPPLY, ECONOMICS, TECHNOLOGY, & POLICY 43-47 (1960), CAL. DEPARTMENT OF WATER RESOURCES, BULL. NO. 198, WATER CONSERVATION IN CALIFORNIA 31-33, 55 (1976); NATIONAL WATER COMMISSION, supra note 271 at 251.

The responsiveness of any consumer to the change in the price of a good or service is measured according to the product's price elasticity of demand. Economists determine the price elasticity of demand by dividing the percentage change in demand by the corresponding percentage change in price. For example, if a 50 percent increase in the water price reduced demand for water by 50 percent then price elasticity would equal -1.00 (-50%/+50%=-1.00). One study of agricultural water pricing has indicated that price elasticity of demand for irrigation water is -0.64, (a 10 percent increase in irrigation water price might result in a 6 to 7 percent reduction in water use). J. BAIN, R. CAVES, J. MARGOLIS, NORTHERN CALIFORNIA WATER INDUSTRY 176 (1966). Another study has indicated

The water rate structure is commonly cited as an example of such inefficiencies. 273/

Under a flat rate system, water price is unaffected by the quantity utilized. This system is found in unmetered areas and is considered the most wasteful type of rate structure. The introduction of water meters in nonmetered areas has resulted in the reduction of water use by 25 percent. 274/

A declining block rate system sets a decreasing water rate for each succeeding block of water consumed. This system is the most common rate structure in California. Like the flat rate system, declining block rates discourage conservation. 275/

Uniform rates (each unit of water costs the same), increasing block rates (the rate for succeeding blocks increases with the consumption of each block), and peak load or seasonal rates (a consumer is charged a uniform rate for an initial quantity of water and a higher rate for water

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that price elasticity may vary from -0.24 at a water price of $6.00 an acre-foot to -4.00 at $25.00 an acre-foot. L. SCHELHORSE, et al., THE MARKET STRUCTURE OF THE SOUTHERN CALIFORNIA WATER INDUSTRY 170 (1974). A study of urban residential water demands indicated that a 10 percent increase in water price would reduce indoor (domestic) use by 2 percent and outdoor (sprinkling) use by 11 percent. NATIONAL WATER COMMISSION, supra note 271 at 253.

273/ The water pricing policy of the Bureau of Reclamation is also frequently cited as an example of inefficient pricing policy. Water prices do not reflect the interest costs of constructing the irrigation projects and irrigation rates are subsidized by municipal and hydroelectric power revenues. Revisions in this policy would require changes in federal law. NATIONAL WATER COMMISSION, supra note 271 at 145.

274/ CAL. DEPARTMENT OF WATER RESOURCES, BULL. NO. 198, WATER CONSERVATION IN CALIFORNIA 33 (1976).

275/ Id.

in excess of the initial amount) all would discourage waste by relating water charges to actual water use. 276/ Low income consumers could be protected from increasing water charges by the establishment of a "life-line" minimum rate for a certain initial amount of water. 277/

B. Statewide Rationing of Water

Statewide rationing legislation has been introduced in the California Legislature as one remedy to the current drought situation.278/ The proposed legislation would impose a mandatory 25 percent reduction in domestic, municipal or industrial water uses during the 1977 calendar year when compared to use in 1976. Water suppliers would be required to prepare and implement a rationing plan to achieve the 25 percent reduction, or submit evidence that the reduction is already being met, or demonstrate that local storage facilities cannot accommodate such savings or that facilities are not available to transport the savings to other areas of the State. The Department of Water Resources was authorized to exempt any water supplier upon a finding of "special circumstances."

C. State Review of Water Service Contracts

An increasing portion of the state's water needs are being met through water service contracts with the State or Federal Government. In 1976, the State Water Project supplied 1,958,000 acre-feet pursuant to its long-term contracts. Similarly, the U. S. Bureau of Reclamation provided 5,980,000 acre-feet of contract water.

276/ Id.

277/ Id.

278/ Cal. Leg., Assembly Bill No. 527 (as amended May 11, 1977).

The State Water Resources Control Board recently asked its staff to consider legislation which would authorize the Board to review and approve or disapprove water supply contracts in light of the Board's policy of encouraging waste water reclamation. 279/ The proposal would allow the Board to disapprove any new or renegotiated contract if reclaimed water would be a feasible alternative source.

While this proposal has yet to be introduced as legislation, the State Legislature is considering legislation affecting the State Treasurer's authority to review water service contracts. The proposed legislation would condition the State Treasurer's approval of water service contracts upon a finding that the agreement is consistent with the long-term environmental and social interest of the State "recognizing that water is a limited resource which must be efficiently, equitably and economically conserved and used." 280/ Such a finding would appear to require consideration of the feasibility of waste water reclamation as a possible alternative source of supply.

279/ Alternately, the Board asked its staff to consider legislation requiring water agencies to file informational reports with the State Board assessing their potential for using reclaimed water and reporting the extent to which use of reclaimed water is planned. CAL. STATE WATER RESOURCES CONTROL BOARD, POLICY AND ACTION PLAN FOR WATER RECLAMATION IN CALIFORNIA 22 (January 1977).

280/ Cal. Leg., Assembly Bill No. 337 (as amended May 5, 1977).

STATEMENT OF ISSUES

I. Reasonable Beneficial Use

A. What revisions, if any, should be made to the reasonable beneficial use requirement?

1. Should there be consideration of local custom in determining reasonable beneficial use?

2. Should there be an express duty to reclaim waste water where economically feasible?

3. Should the reasonable beneficial use limitation be redefined so as to apply a "best practical" or "best available" water conservation technology standard?

B. If revisions are necessary, in what manner should they be imposed?

1. Should any revisions be implemented through a Constitutional amendment?

2. Would legislative clarification be adequate?

3. Should any revisions be administratively adopted?

C. Should the reasonable beneficial use limitation be expressly applied to holders of contract water rights?

D. What are the best methods for the enforcement of the reasonable beneficial use limitation?

1. Should the existing administrative enforcement process of the State Water Resources Control Board and/or the Department of Water Resources be revised so as to encourage greater investigation of potential violations of the reasonable beneficial use limitation?

2. Should the State Water Resources Control Board be granted cease and desist authority?

3. Should civil penalties be added to the enforcement mechanism?

4. Should private litigation to enforce the reasonable beneficial use limitation be encouraged by providing for the reimbursement of litigation costs incurred by any successful complaining private party?

II. Salvage Water

A. Should salvagors be required to follow the existing permit and license process before they may use the water they have salvaged?

B. What priority date, if any, should be given to the salvaged water?

III. Return Flow

A. Should downstream users be granted the right to the continued flow of the return waters or should their rights be restricted to that portion of the return flow that has been abandoned?

B. Should a municipality or other treating party be granted express authority to sell its treated effluents?

IV. Are additional means for encouraging water conservation required?

A. Should a flexible water pricing policy be encouraged so as to promote the installation of water meters and discourage the use of flat rates or declining block rates?

B. Should a statewide rationing program be adopted?

C. Should the emergency powers of the Governor under the Emergency Services Act be redefined to expressly include the power to order water rationing in the event of a drought situation?

D. Should the State Water Resources Control Board or any other state agency be given the authority to review new or renegotiated water service contracts with regard to the availability of reclaimed water as an alternate water supply source?

E. What other alternatives should be considered?